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TELEHEALTH TO DIGITAL MEDICINE: HOW 21ST CENTURY TECHNOLOGY CAN BENEFIT PATIENTS

HEARING

BEFORE THE

SUBCOMMITTEE ON HEALTH

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

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TELEHEALTH TO DIGITAL MEDICINE: HOW 21ST CENTURY TECHNOLOGY CAN BENEFIT PATIENTS

THURSDAY, MAY 1, 2014

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:02 a.m., in room 2123, Longworth House Office Building, Hon. Joseph R. Pitts (chairman of the subcommittee) presiding.

Present: Representatives Pitts, Burgess, Shimkus, Lance, Guthrie, Griffith, Bilirakis, Ellmers, Barton, Upton (ex officio), Pallone, Dingell, Engel, Green, Barrow, Christensen, and Waxman (ex officio).

Also present: Representative Harper.

Staff Present: Clay Alspach, Chief Counsel, Health; Sean Bonyun, Communications Director; Noelle Clemente, Press Secretary; Sydne Harwick, Legislative Clerk; Robert Horne, Professional Staff Member, Health; Chris Pope, Fellow, Health; Macey Sevcik, Press Assistant; Heidi Stirrup, Health Policy Coordinator; Tom Wilbur, Digital Media Advisor; Ziky Ababiya, Minority Staff Assistant; Kaycee Glavich, Minority GAO Detailee; Karen Lightfoot, Minority Communications Director and Senior Policy Advisor; and Matt Siegler, Minority Counsel.

OPENING STATEMENT OF HON. JOSEPH R. PITTS, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA

Mr. PITTS. The subcommittee will come to order. The chair will recognize himself for an opening statement.

Telemedicine and digital medicine in all their forms present a host of potential benefits to both patients and providers. Virtual doctor visits are one way to help address provider shortages, particularly in rural areas where patients may have to travel a great distance at their own cost to see a doctor in person. Telemedicine can allow in-home monitoring of chronically ill patients and facilitate patient education.

Provider-to-provider virtual consultations may also lead to greater efficiencies in the system by providing continuity of care and reducing duplicative testing and services. The ability to Skype or use a video call can also reduce the inappropriate use of resources by patients. For example, a parent with a small child who is sick in

the middle of a night could access a provider via web cam and potentially avoid an unnecessary trip to the emergency room.

For all of its potential benefits, concerns about the appropriate way to support such technologies abound. If not done carefully, some fear the potential for good that many envision in this space can instead lead to waste, fraud, and abuse. Therefore, the purpose of today's hearing is to explore the types of technologies that hold great promise and hear ideas that allow the Federal Government to realize this potential to reduce cost, improve efficiencies, and ensure quality in our healthcare programs.

To that end, Ranking Member Pallone and I will be releasing a call for ideas following the hearing. We will be looking for specific policy and legislative ideas on how the Federal Government can support technology adoption in our healthcare programs for the express and explicit purpose of reducing cost and increasing the overall quality and efficiency of the programs.

We are also looking for ways in which the Federal Government currently inhibits the use or adoption of such technologies by all players in the healthcare system, be they insurer, provider, or patient. The more specific and targeted policy, the greater chance it will hold for congressional support down the line.

I would like to welcome all of our witnesses to the subcommittee hearing today, especially Dr. Tom Beeman, president and CEO of Lancaster General Hospital, the largest hospital and one of the largest employers in my congressional district.

I would like to yield the remainder of my time to the gentleman from Mississippi, Mr. Harper.

[The prepared statement of Mr. Pitts follows:]

PREPARED STATEMENT OF HON. JOSEPH R. PITTS

The Subcommittee will come to order.

The Chair will recognize himself for an opening statement.

Telemedicine and digital medicine, in all of their forms, present a host of potential benefits to both patients and providers.

Virtual doctor visits are one way to help address provider shortages, particularly in rural areas, where patients may have to travel a great distance, at their own cost, to see a doctor in-person.

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I would like to welcome all of our witnesses to the Subcommittee today, especially Dr. Tom Beeman, President and CEO of Lancaster General Hospital, the largest hospital and one of the largest employers, in my congressional district.

Thank you, and I yield the remainder of my time to _____.

Mr. HARPER. Thank you, Mr. Chairman. I appreciate your attention to this important subject.

And, Ranking Member Pallone, I value your shared interest in telehealth.

Over the last couple of years, I have had the privilege of being a part of this exciting conversation on telemedicine. My staff and I have engaged in a years-long discussion and dialogue with patients, providers, and many other industry stakeholders to determine the most appropriate way for Congress to advance telehealth.

The bottom line is that until we can attract more physicians to underserved communities and tighten the access gap, the best and most cost-efficient alternative is to improve telehealth networks. That is why I have introduced the Telehealth Enhancement Act, a bill to strengthen Medicare and enhance Medicaid through expanded telemedicine coverage.

But most importantly, it is really about fairness. Access to care should not be limited based on where Americans choose to live. My goal is to build on existing telemedicine reforms that States like Mississippi have advanced and pioneered. The University of Mississippi Medical Center, for example, has been a leader in advancing telemedicine. Along the way, I hope also that we can help States, as well as the Federal Government, to lower healthcare costs by encouraging people to adopt healthier lifestyles and reducing avoidable hospital visits.

Just this past Monday, the State of Mississippi was devastated in many communities from a series of tornados. Yesterday, I was able to fly down with our two United States Senators and another Congressman to view the damage, and particularly hard hit were areas in Tupelo, in my home county of Rankin County, and the cities of Richland, Pearl, and Brandon, but most extensively was in the city of Louisville, which experienced about a 0.75 of a mile to a mile-wide tornado that was on the ground for some distance, with many deaths. And so the University of Mississippi Medical Center was able to utilize telemedicine to help on the ground there and continuing to do so. And these are things that, I think, have a great future.

So thank you, Mr. Chairman. And I yield back.

Mr. PITTS. The chair thanks the gentleman.

I now recognize the ranking member, Mr. Pallone, 5 minutes for an opening statement.

OPENING STATEMENT OF HON. FRANK PALLONE, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEW JERSEY

Mr. PALLONE. Thank you, Chairman Pitts, for agreeing to hold today's important hearing on telehealth. As ranking member of this

subcommittee and a member of the Communications and Internet Subcommittee, telehealth has been an interest of mine for some time. And I also know there are many members of the committee and across Congress who share this interest. So I am glad we are having this opportunity.

An aging population and an expansion in healthcare coverage means that more Americans will be using healthcare services in the coming years. And as new demands are placed on our national healthcare system, I strongly believe as policymakers we need to be actively working to leverage technology to lower costs, increase access, and improve quality of care.

The convergence of medical advances, health information technology, and a nationwide broadband network is transforming the delivery of care by bringing the healthcare provider and patient together virtually. Telemedicine has the potential to serve a large portion of the U.S. by expanding the reach of medical resources while reducing cost and increasing quality. And while we continue to advocate transforming our system from one of treating the sick to preventing people from getting sick, telemedicine can play a pivotal role.

For example, persons who have difficulty leaving the home, the elderly and the physically disabled, could easily and regularly access health care from the comfort of their home. Telemedicine also has the ability to assist people with diabetes, obesity, heart failure, and mental illness, as well as other diseases by reducing the number of readmissions to hospitals.

When Congress passed the Affordable Care Act we strongly felt that the status quo was not sustainable. Not only did we have to expand coverage in this country for the uninsured, but we also needed to change our system to reflect and incentivize both quality and efficient care. And as a part of that broader goal, the law includes a variety of provisions aimed at expanding the use of telehealth, recognizing that doing so can help to increase the quality of care through monitoring and specialization.

For example, the Independence at Home Demonstration is testing whether providing chronically ill patients with a range of services in the home setting can reduce hospitalization and improve health outcomes. It also includes an option for states to provide health homes for Medicaid enrollees with chronic conditions. And of course the greater use of ACOs can play an important role in the expansion of telehealth services.

Telehealth also allows patients' health to be constantly monitored between doctors visits and makes it easier for patients to connect with more specialists. Evidence shows the specialists utilizing telemedicine are still able to accurately evaluate and diagnosis patients without person-to-person contact. Telephone, video conferencing, computers, and Internet applications or apps are all employed. Hospitals and medical centers use telehealth to reach patients in underserved rural areas. The military makes use of telehealth in its health program, and States within their bounds are working with universities to practice telemedicine.

Telemedicine can also reduce healthcare costs. It would enable doctors and other specialized professionals to come together and effectively reach more patients, which is important as the ACA is

being implemented and more Americans are becoming insured. It also allows for diseases to be tracked so they can be treated before they become more costly. And telehealth proponents suggest that these technologies can relieve medical workforce shortages and the unequal distribution of clinicians in the United States.

For patients, telehealth can mean connecting with medical expertise not locally available, saving time, money, and travel, reducing unnecessary hospital visits, and improving the management of chronic conditions.

And that is why I joined with my Republican colleague, Representative Devin Nunes, a member of the Ways and Means Committee, to introduce the Telemedicine for Medicare or TELE–MED Act, which aims to increase access to telemedicine in the Medicare program. Specifically, it would permit Medicare providers who are licensed to practice medicine physically in one State to treat patients electronically across State lines.

Under that bill, the State in which the license is issued would have enforcement authority regardless of the patient's location. And by connecting the Medicare patient and provider virtually at the point and time of care, the TELE–MED Act gives Medicare patients access to the best health care anywhere at any time. It also directs the Secretary to report to Congress on how we can ensure increased use of telemedicine in the Medicare program.

Now, I know there are stakeholders who remain concerned about the approach we have taken in this bill. I also know that telehealth raises operational questions and faces serious challenges. For example, most clinicians have not been trained in telehealth, and there are also security and privacy concerns. As a strong advocate of preserving and strengthening Medicare, we must ensure program integrity is preserved and utilization costs do not rise.

So we have a lot of work to do, Mr. Chairman, but I hope that we can still find common ground. We have a great opportunity to come together to expand the use of telehealth in this country. That is why I am proud to join with you in calling for an exchange of ideas. And as you said, we intend to set up a process in which all stakeholders can share with our subcommittee their views on this topic. Our goal is to use this process to further inform the subcommittee on what public policies that, if adopted by Congress, might allow for improved delivery and access to health care.

Thank you, Mr. Chairman.

Mr. PITTS. The chair thanks the gentleman.

I now recognize the chairman of the full committee, Mr. Upton, for 5 minutes for an opening statement.

OPENING STATEMENT OF HON. FRED UPTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. UPTON. Well, thank you, Mr. Chairman.

We are here today to explore the opportunities 21st century technology presents to improve the lives of patients and advance our healthcare system. The introduction of digital forms of communication and applications, such as wireless technologies and smart phones, hold tremendous and great promise for the future of our healthcare system.

Twenty-first century technologies can allow providers to monitor patients released from an inpatient hospital, help reduce the chances of relapse or even readmittance. They also can support new delivery reforms and models that were part of the focus of the doc fix SGR reform legislation that was authored by Dr. Burgess, which we passed out of this committee 51 to nothing; help improve access for those in rural areas like South Haven, Michigan; reduce the overall invasiveness and risk related to healthcare procedures and illnesses.

I want to commend particularly you, Chairman Pitts and Ranking Member Pallone, for your collaboration on today's hearing. As you have discussed, we will be soliciting ideas for how technology can be incorporated into our healthcare system to improve the cost, quality, and delivery of health care across the country.

And in support of that effort there are a number of questions that need to be answered. Which technologies hold promise for improving the quality and delivery of health care in this country? What role, if any, exists for the Federal Government in supporting such technologies? How can Congress help foster and realize the promise of 21st century technologies to improve the lives of all Americans?

This will be a priority of the Committee on Energy and Commerce over the next couple of years as we work together towards fostering innovation that will lead to more treatments and cures for issues related to personal illnesses and the overall delivery of health care. The topics discussed today will certainly be a vital part of the 21st Century Cures initiative that was unveiled yesterday and will continue in the weeks and months ahead.

I also want to recognize the efforts of committee members Gregg Harper, Bill Johnson, Doris Matsui, and Peter Welch, who have helped author legislation that in part made today's hearing possible. I yield back the balance of my time to gentleman from Texas, Dr. Burgess.

[The prepared statement of Mr. Upton follows:]

PREPARED STATEMENT OF HON. FRED UPTON

We are here today to explore the opportunities 21st century technology presents to improve the lives of patients and advance our health care system.

The introduction of digital forms of communication and applications, such as wireless technologies and smart phones, hold great promise for the future of our health care system. Twenty-first century technologies can allow providers to monitor patients released from an inpatient hospital and help reduce the chances of relapse and re-admittance. They also can support new delivery reforms and models that were part of the focus of SGR reform legislation authored by Dr. Burgess, help improve access for those in rural areas, and reduce the overall invasiveness and risks related to health care procedures and illnesses.

I want to commend Chairman Pitts and Ranking Member Pallone for their collaboration on today's hearing. As they just discussed, they will be soliciting ideas for how technology can be incorporated into our health care system to improve the cost, quality, and delivery of health care in this country.

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care. The topics discussed today will certainly be a vital part of the 21st Century Cures initiative that was unveiled yesterday.

I also would like to recognize the efforts of committee members Gregg Harper, Bill Johnson, Doris Matsui, and Peter Welch who have helped author legislation that in part made today's hearing possible.

I yield the balance of my time to _____.

Mr. BURGESS. I thank the chairman for yielding and I thank the chairman for the recognition about the SGR bill. It is a landmark achievement.

I will never forget the time in practice when I learned about the CPT Code 99371. It was a code that paid for a telephone consultation. I thought my life would be forever changed because now all of these hours at night I spent on the telephone could be reimbursed. But little did I know it fell into the broad category of codes with no reimbursement. All right.

Medicine has changed a lot in the 21st century, and a lot of it has been for the good. Some of the policy has been the opposite of good, but many of the things that are happening on the technological front are certainly dramatically changing the practice of medicine, and telemedicine is helping to improve access to care and make practices more efficient. The convergence of medical and technological advances; everyone is now carrying a smart phone. The nationwide broadband network is transforming the delivery of care by bringing providers and patients together, together in a virtual world that previously did not exist.

In Texas, providers from across the State can now treat patients in remote locations. A Texas law passed in 2013 enables physicians to more easily collaborate with rural nurse practitioners via teleconference, helping to expand vitally needed primary care services to patients. Thus the role of the physician extender is finally being fulfilled.

It is important that these services be provided in a manner that is safe and effective for patients. The technological advances before us and those just over the horizon have great potential to connect patients to cutting-edge care, but it must be practiced by those appropriately trained for the maximum potential benefit. For that reason, I am grateful that we have the panel before us today, certainly, an all-star panel of people who live in this world every day. I am looking forward to their testimony. And I will yield back, Mr. Chairman.

Mr. PITTS. The chair thanks the gentleman.

I now would like to ask unanimous consent to include the following statements for today's hearing record from the American Osteopathic Association, the American Academy of Dermatology Association, American Medical Association, and the American Academy of Family Physicians. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. PITTS. We have on our panel today five witnesses. I will introduce them in the order in which they should speak. First, Dr. Rashid Bashshur, executive director for eHealth, University of Michigan Health System. Secondly, Dr. Ateev Mehrotra, policy analyst, RAND Corporation; then Dr. Tom Beeman, president and CEO of Lancaster General Health; Mr. Gary Chard, Delaware

State director, Parkinson's Action Network; and Ms. Kofi Jones, the vice president of public affairs of American Well.

Thank you very much for coming. Your written testimony will be made a part of the record. We will give you each 5 minutes to summarize your testimony. There is a little system of lights on your table, so when you see red, that means you should wind up, if you please.

And Dr. Bashshur, we will start with you. You are recognized for 5 minutes for your opening statement. Poke the button on there, please. Yes. The light should come on and then you are on.

STATEMENTS OF DR. RASHID BASHSHUR, EXECUTIVE DIRECTOR FOR EHEALTH, UNIVERSITY OF MICHIGAN HEALTH SYSTEM, PROFESSOR EMERITUS, UNIVERSITY OF MICHIGAN SCHOOL OF PUBLIC HEALTH; DR. ATEEV MEHROTRA, POLICY ANALYST, RAND CORPORATION, ASSOCIATE PROFESSOR OF HEALTH CARE POLICY AND MEDICINE, HARVARD MEDICAL SCHOOL; DR. TOM BEEMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER, LANCASTER GENERAL HEALTH; GARY CHARD, DELAWARE STATE DIRECTOR, PARKINSON'S ACTION NETWORK; AND KOFI JONES, VICE PRESIDENT OF PUBLIC AFFAIRS, AMERICAN WELL

STATEMENT OF RASHID BASHSHUR

Mr. BASHSHUR. Thank you very much. I am delighted to be here to discuss telemedicine with you. Thank you for the opportunity. For convenience, I will use the term "telemedicine" throughout my discussion, also referred to as telehealth, e-health, m-health, and connected health.

If I may, Mr. Chairman, I would like to thank the distinguished Members of Congress who just spoke for making my job easy. They have already said it: No one has to prove that ready access to expert medical consultations at reasonable cost can save lives; that obviating travel and reducing waiting times for patients and their families by providing appropriate quality care in their local community and referrals only when necessary is a step in the right direction; that ready access to evidence-based medicine by providers is in the best interest of patients; that giving providers immediate access to electronic health records, which include patients' medical history, allergies, medications, would enable them to make better clinical decisions and to avoid errors and adverse events from medication contraindications; that enabling patients to adopt healthy lifestyles and take an active part in their own care is inherently good and saves money; that avoiding unnecessary medical visits for pre- and post-surgery appointments; the list goes on.

On a more personal level, no one needs to prove that saving the life of a young boy presenting with cardiac arrest in a remote community hospital is worth the limited cost of a multipurpose telemedicine network. I know of one tragic event where such a boy died en route to a tertiary care hospital when a remote consultation with a pediatric intensivist could have saved his life.

Telemedicine can save money by early intervention, rapid response, and empowered patients. It can avoid costly complications of chronic diseases. Its tools can be used to reduce human resource

cost, travel cost, and wasted waiting times as a substitute and not an add-on service.

The expansion of this modality of care with proper goals, ongoing assessment, together with attendant adjustments and quality controls, would save money and improve health outcomes. It is most effective when limited assets across State lines can be brought into play. Consumer feedback is necessary to avoid potential abuse and incompetence. National reciprocity with minimal paperwork and national databases are necessary.

The technologies that can be used to promote adoption of healthy lifestyles with enormous implications for cost savings are wearable sensors, smart phones, and mobile devices, likely to become the dominant telemedicine technology. These technologies have produced efficiencies in the delivery of service to the point of need in entertainment, banking, commerce, and education. The same applies to health care.

With continued public support for research and development for further deployment and refinement of these systems, there will be winners: patients, providers, and the public purse. Thank you.

Mr. PITTS. Chair thanks the gentleman.

[The prepared statement of Mr. Bashshur follows:]

Statement Submitted to the Committee on Energy and Commerce, House of Representatives, Congress of the United States.

May 1, 2014

I am delighted to be here to discuss telemedicine with you, thank you for the opportunity. I have focused on studying telemedicine for more than four decades. It began when I was seconded to the Institute of Medicine from my faculty position at the University of Michigan from 1970 to 1972. In 1973, the National Science Foundation provided funding for me to assess the status of telemedicine in the United States; and to report on the lessons learned from the early experience based upon demonstration projects funded by the Federal government. And, I have been at it ever since.

For convenience in my presentation I will use the term telemedicine (also referred to as telehealth, e-health, m-health and connected health) to include all forms of electronic information exchange between patients and providers among providers and between all users and sources of health information.

I would like to begin by making a few general remarks about current health and medical care issues that are of serious concern to

policymakers, health professionals and citizens alike. And, following this, I will try to highlight the role of telemedicine in addressing these issues. The issues include : (1) the differential access to healthcare among segments of the population based on geographic, socio-economic, cultural, and other factors; (2) the uneven distribution of medical expertise and health resources at the state, regional, and national levels; and, of course (3) the continuing escalation in the cost of care. These seemingly intransigent problems are exacerbated by; (a) the aging of the population (with the attendant increase in chronic illness); (b) some structural inefficiencies in the financing and delivery of care (such as the prevailing traditional modes of delivering care only in the office, clinic or hospital, and the fee-for-service system); (c) the prevalence of adverse life styles (smoking, obesity, sedentary life, and excessive drinking); and, perhaps ironically; (d) advances in medical science, technology and pharmaceuticals that have simultaneously contributed to saving lives, reducing medical infirmities; while also driving costs upward.

Telemedicine development has accelerated over the last few decades not only because of vast improvements in the underlying

technology, but more importantly because of its promise to address the triad problems of access, cost and quality.

A large and growing body of evidence has demonstrated the capacity of telemedicine to assist in accomplishing the following:

- Improve access to quality care at all levels (primary, secondary and tertiary). Make appropriate care available within people's daily activity spaces, that is, where they live, work, shop and study.
- Promote patient-centered care at lower cost in local communities which, in turn, contribute to stabilizing local health resources and economies.
- Promote development of integrated care systems to assure quality and continuity of care, and safety.
- Support the development of the "medical home" among the chronically ill; and, improve the efficiency and effectiveness of chronic disease management in the home and in long term care facilities as well.

- Enhance efficiency and effectiveness in remote on-site triage for consultations in critical cases, prompt and appropriate referrals, and follow-up care.
- Improve clinical decision making, prescription ordering and remote mentoring among providers
- Enhance active involvement in shared decision making and self- care among better informed patients.
- Promote the adoption of healthy lifestyles.

This is not hopeful speculation. As I mentioned, there is a large and growing body of evidence, albeit not always based on hard science, which attests to these capabilities.

Indeed, no one needs to prove:

- The merit of ready access to expert medical consultations at low cost in the face of serious illnesses and life-threatening conditions.
- That obviating travel and reducing waiting times for patients and their families by providing appropriate quality care in their local community and referrals only when necessary is a step in the right direction.

- That ready access to knowledge by providers on evidence-based medicine is in the best interest of the patient.
- That giving providers immediate access to complete and accurate electronic health records which include patients' medical history, allergies and medications would enable them to make better clinical decisions and to avoid errors and adverse events from medication contraindications.
- That educating patients to adopt healthy lifestyles and to take an active part in their own care is inherently good and saves money.
- That avoiding unnecessary medical visits for pre- and post-surgery appointments.....The list goes on....

On a more personal level, no one needs to prove that saving the life of a teenage boy presenting with cardiac arrest in a remote community hospital through a telemedicine link to pediatric intensivists in a tertiary care medical center is worth the limited cost of a versatile telemedicine network that can serve a variety of other functions. I know of one tragic event where such a boy died en route

to a tertiary care hospital when a remote consultation with a pediatric intensivist could have saved his life.

With such enormous demonstrated potential, the obvious question is not "why telemedicine" but "why not telemedicine"? What are reasons for delay in wider implementations of telemedicine? Allow me to highlight a few:

(1) Telemedicine represents a new paradigm that challenges our traditional mode of care delivery. Change is likely to occur slowly. The inertia of change is strong and such a paradigm shift can be expected to occur slowly. Nonetheless, we are now witnessing major transformations not only in the adoption of electronic health records and personal health records, but also in vast expansions in the adoption of information and communication technology in various facets of health care delivery. Today, no health system in the private or public sector can survive without reliance on ICT in one form or another (as in appointments, billing, and so on).

(2) We may still be mired in another paradigm, namely, dysfunctional traditions in the financing and delivery of healthcare, including a traditional fee-for-service system that has outlived its

usefulness and an outmoded system, for example, of serving the chronically ill by means of the revolving door system established on the basis of acute care.

(3) The Federal government has emphasized the deployment of important tools, such as the EHR and the PHR, with only limited attention to the necessity of incorporating them into telemedicine systems and networks that optimize their use. The total expenditure on telemedicine service by CMS was $12 million in 2013, as compared to the billions spent on broadband and telemedicine infrastructure.

(4) Reimbursement for telemedicine services has been largely limited to rural areas in order to meet the legitimate unmet needs of rural and remote communities while the unmet needs of large groups/population segments in major urban areas have similar unmet needs.

(5) Reimbursement is also limited the least efficient modality of telemedicine service, namely synchronous video communication between an originating site and a remote site. Only Alaska and Hawaii are exempt from this stipulation.

(6) We have yet to open the door fully for connectivity between providers of care on the one hand and schools, workplaces, and homes on the other hand.

(7) And finally, we are struggling to find the right balance between state-based prerogatives over medical licensing and regulation and the vast potential of competition in improving quality and reducing cost.

Summation

Telemedicine systems constitute innovative systems of care that rely on information and communication technology to enable, facilitate and enhance

(1) Doctor-patient interaction regardless of time or distance barriers by obviating the need for travel and other inconveniences for both patients and itinerant providers.

(2) The acquisition, exchange, processing and storage of health information of various types and complexities for safe and effective clinical decision making on the part of providers, as well as shared decision making on the part of patients.

(3) The efficiency and effectiveness of health systems through (a) onsite triage whereby patients are served in their local communities by their usual providers with advice and supervision by remote specialists, and transferred only when necessary; and (b) avoidance of unnecessary clinic and emergency room visits and hospitalization.

(4) The effectiveness of continuing medical education through the provision of prompt and patient-specific evidence-based medical knowledge.

To be sure, telemedicine has costs as well as benefits. The costs include hardware and software, technology support and maintenance, initial training, and human resources. The prices of the technological components and connectivity are on a downward trend.

When properly implemented, the benefits of telemedicine systems include enhanced care coordination between various providers as well as continuity of care at various sites. It would enable patients receive they care they need by the appropriate provider, at the appropriate setting, and closest to where they work and live as indicated by their need. However, these benefits vary

according to the perspective of patients, providers and society at large.

- Patients located in remote, isolated, or confined environments would have ready access to clinical resources.
- Patients would receive medical care from remote medical experts while staying closer to where they live and work, obviating the need for travel.
- Patients would receive the appropriate care at the appropriate site and the appropriate time.
- Patients suffering from chronic illness can be monitored in their home environments while receiving educational materials and learning reinforcement, information on medication management, and control of health risks behaviors.
- Providers in remote communities would have ready access to colleagues in medical centers for consultations, second opinion, and diagnostic expertise available in tertiary care centers, while keeping their patients in the local community.
- Providers in tertiary care centers would extend their reach to serve a widely distributed patient population, mentor colleagues, and provide continuing medical education.

- Health systems (academic medical centers and other large health systems) can improve their efficiency and effectiveness by avoiding unnecessary re- hospitalization and emergency room visits.
- Small community hospitals can improve their census by establishing effective relationships with tertiary care centers for prompt consultations, mentoring, continuing medical education and referrals.
- Payers may save on cost by virtue of early intervention, effective substitution of costly care by less costly care, medication compliance, and healthy behavior.
- Society at large can benefit from (a) reduced carbon footprint by virtue of obviated travel; (b) stabilization of local community hospitals and local health resources by virtue of ongoing support from tertiary care centers; (c) cost savings from effective substitutions of virtual use of service for in-person.

Clearly, telemedicine systems consist of a set of inputs and outputs. The inputs consist of a combination of technological configurations, health manpower mixes, organizational structures and new protocols for the remote delivery of healthcare, mentoring

and education. The outputs can be measured from various perspectives (the patient, the provider, the payer and society at large). The most critical outputs are changes in health status, costs, and access. Telemedicine changes both the processes of healthcare delivery as well as the outputs.

Telemedicine has the potential for transforming the current system of healthcare by creating seamless and ubiquitous healthcare with continuous care management in integrated systems with empowered patients as partners in every phase of care. Application of sensors, electronic information exchange, "just in time" education for patients, caregivers, and local providers are not only feasible, they have already been demonstrated and proven effective. Telemedicine can save money by early intervention, rapid response, and empowered patients. It can avoid costly complications of chronic diseases. It's tools can be used to reduce human resource costs, travel costs, and times wasted waiting as a substitute and not an add-on service. The expansion of this modality of care with proper goals; ongoing assessment together with attendant adjustments; and, quality controls would save money and improve health outcomes. It is

most effective when limited assets across state lines can be brought into play. Consumer feedback is necessary to avoid potential abuse and incompetence. National reciprocity with minimal paperwork and national data bases are necessary.

The technologies that can be used to promote adoption of healthy lifestyles (with enormous implications for cost saving) are wearable sensors, smart phones, and mobile devices (likely to become the dominant telemedicine technology). These technologies have produced efficiencies in the delivery of service to the point of need in entertainment, banking, commerce, and education. The same applies to healthcare. They can be essential in crises, for example, when used in clinical settings where time is of the essence such as cardiovascular and cerebrovascular diseases. As well, the chronically ill can manage their care and be monitored remotely.

With continuing public support for research and development for further deployment and refinement of these systems, there will be winners: patients, providers, and the public purse.

Respectfully Submitted,

Rashid Bashshur

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Mr. PITTS. And I now recognize Dr. Mehrotra 5 minutes for an opening statement.

STATEMENT OF ATEEV MEHROTRA

Dr. MEHROTRA. Thank you, Chairman Pitts, Ranking Member Pallone, and the distinguished members of the committee, for inviting me to testify. My name is Ateev Mehrotra. I am a physician and researcher at the Beth Israel Deaconess Medical Center, the RAND Corporation, and Harvard Medical School.

One of my core research interests is understanding the impact of delivery innovations, and I have termed the burgeoning number of new delivery options as the convenience revolution in health care. My hope is that these new care options can address the common complaint I hear from my own patients: that they often have difficulty getting care in a timely manner.

My testimony today is organized around four points for the members of the committee to consider. First, frame telehealth broadly. One form of telehealth is simply replacing a face-to-face visit with a video conference. And while this form of telehealth technology is important, I believe telehealth should be framed much more broadly. Telehealth essentially means using technology to deliver care in a mode other than a traditional face-to-face visit.

The great diversity of telehealth technologies makes Congress' job very difficult. While it might be tempting to begin to define, regulate, or pay for telehealth on how it is delivered, technology changes very rapidly, and any definition that specifies the type of technology runs the risk of being outdated quickly. One reason I advocate for global payment methods is the payment is not specific to how the care is provided, and this is a point I will return to later in my testimony.

My second point is do not always assume that telehealth improves care. As with all new technologies and delivery models, it is important not to assume that telehealth always improves care. While many studies have shown that telehealth can have a positive impact, others have found telehealth is ineffective and sometimes even harmful. For example, one recent study of home monitoring for older adults found that the home monitoring led to an increased risk of death.

To ensure that telehealth is beneficial, we need more population-based quality measures instead of our current quality measures, which are often specific to how the care is delivered; for example, care in a nursing home. Also, it is hard to make blanket statements about whether a given telehealth technology is effective or ineffective. Rather, the impact of the telehealth technology depends on what are the patient and the clinical situation. And so the complexity emphasizes the need for more ongoing evaluation of telehealth and what works and what doesn't work.

My third point is that telehealth may improve access but not always for the populations we expect. I believe telehealth can improve access for people who live in rural areas. However, it is important to recognize that people who live in urban areas and wealthier communities may be the most likely to use telehealth. They may preferentially turn to telehealth because they are equally attracted to the convenience and may have more access and famili-

arity with technology. Recognizing telehealth's broad appeal is essential because policies should not be crafted just for rural communities.

My fourth and final point is that telehealth can be cheaper per clinical encounter, but could also increase utilization and spending. Telehealth can reduce healthcare spending. Many studies, including my own, have documented that telehealth can lead to be cheaper on a per-visit basis. However, lower costs per visit does not ensure that telehealth reduces spending. To reduce spending, the telehealth visit must replace an in-person visit.

The concern is that telehealth could drive greater utilization and increase spending. In other words, people who otherwise would have not sought care use telehealth to get care. Now, if this increased use of care leads to better treatment, better health, then this new utilization is good for society. However, the concern is this new use could be overutilization, that is care that does not lead to improvements in health, and therefore this increased utilization does not have any benefit.

The very advantage of telehealth, its ability to make care convenient, is also potentially its Achilles' heel. In some cases telehealth can be too convenient. This possibility of overutilization can be tempered through bundled payment. Under a bundled payment system, providers have more flexibility on deciding upon the most appropriate and cost-effective means of delivering care for a given patient in a clinical situation.

To sum up, I am a firm believer in the potential for telehealth and other delivery innovations to improve quality, decrease costs, and increase access, but there are many complexities that require consideration to ensure that telehealth reaches that potential.

Again, let me thank you for allowing me to appear before you today, and I would be happy to take any questions.

Mr. PITTS. The chair thanks the gentleman.

[The prepared statement of Dr. Mehrotra follows:]

Expanding the Use of Telehealth

Promise and Potential Pitfalls

Ateev Mehrotra

RAND Office of External Affairs

CT-409

May 2014

Testimony presented before the House Energy and Commerce Committee, Subcommittee on Health on May 1, 2014

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Ateev Mehrotra[1]
The RAND Corporation

Expanding the Use of Telehealth:
Promise and Potential Pitfalls[2]

Before the Committee on Energy and Commerce
Subcommittee on Health
United States House of Representatives

May 1, 2014

Thank you Chairman Pitts, Ranking Member Pallone, and distinguished members of the subcommittee; I am honored to have been invited to testify before you today on a topic of such importance to our healthcare system. My name is Dr. Ateev Mehrotra. I am a staff physician at the Beth Israel Deaconess Medical Center, an Associate Professor at Harvard Medical School, and a policy analyst at the RAND Corporation.

One of my core research interests is understanding the impact of delivery innovations on the triple aim – improving quality, decreasing costs, and improving access. In previous work I have examined new ways of delivering primary care or urgent care using nurses and physician assistants at retail clinics or nurse-managed health centers. I have also studied the care provided by personal health records, eVisits, and telephone-based visits. There are a burgeoning number of new delivery options available to patients which I have termed the "convenience revolution" in health care.[1] My hope is that these new delivery options can address the common complaint I hear as a physician, and what I am sure you hear from your constituents: that people across the nation often have difficulty accessing care in a timely manner.

My testimony today is organized around four points for the members of the Committee to consider as they address the growing use of telehealth.

Frame telehealth broadly

One form of telehealth is simply replacing an in-person visit between a patient and physician with a real-time videoconference. While such forms of telehealth are important, I believe we should

[1] The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research. This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.
[2] This testimony is available for free download at http://www.rand.org/pubs/testimonies/CT409.html.

define telehealth much more broadly. Telehealth essentially means receiving care in a mode other than a traditional face-to-face visit. In some cases, the goal of telehealth is to replace a face-to-face visit, but in many other cases the goal is to enhance the care provided in face-to-face visits or to deter costly complications such as hospitalizations. Some telehealth options that I think are worth noting:

- In Pittsburgh, almost 200,000 people have an online account hosted by their health system.[2] This allows them to use their computers or smart phones to regularly look up their test results and message with their physician to ask questions or address changes in management. Across the nation, more than 15 million have similar personal health records.
- In Detroit, nurses at Wayne State are studying whether text messages sent to patients with hypertension can help improve their blood pressure control.[3]
- In Oak Brook, Illinois, intensive care physicians and nurses help manage approximately 250 patients at eight different hospitals in the region from a single command center where they can monitor vital signs, lab tests, and other studies.[4]
- In San Francisco, physicians have set up kiosks in emergency departments and urgent care centers. If a woman is concerned she has a urinary tract infection, she answers a series of questions and based on her answers, a computer algorithm decides on the course of care.[5]
- In Rochester, Minnesota, primary care physicians are using eConsults to replace specialty visits. Typically, when a patient sees a primary care physician and a specialist's input is necessary, the primary care physician sends the patient to a specialist. Under an eConsult system, a primary care provider poses the question electronically. In many cases, the patient does not have to visit the specialist at all, saving both the patient time and money.[6]

I chose these telehealth options to illustrate the many different ways technology can be used to deliver care between patients and providers. The great diversity of telehealth makes Congress' job difficult as it is hard to simply define telehealth. The many federal agencies involved with telehealth have struggled to find a common definition.[7] While it might be tempting to begin to define, regulate, or pay for telehealth by technology, technology changes rapidly and any definition that specifies the type of technology runs the risk of being outdated very quickly.

One reason I advocate for increased use of bundled payment versus our current fee-for-service system is that the bundled payment is not contingent on providing the care in-person or specific to a given telehealth technology. Providers have more flexibility in deciding upon the most

appropriate means of delivering care for a given patient or condition. This flexibility is important for telehealth to reach its potential to improve quality, decrease costs, and improve access.

Do not assume telehealth leads to better care

There were initially concerns about the quality of care provided via telehealth, but these were often misplaced. Most published research studies have found that telehealth care can be as effective as in-person care. My own work on telephone-based urgent care[8] and other innovations such as retail clinics,[9] though preliminary, has indicated that the care might be equal to the care provided during an in-person physician visit. The care can also be superior. A recent study of tele-ICU care found that it led to more than a 15% reduction in mortality.[10]

As with all new technologies and delivery models, it is important, however, not to assume that the technology always improves care. Sometimes telehealth may even lead to harm. In one study we compared the care provided via eVisits and office visits from the same set of physicians. For some conditions it appeared that the physicians providing care via eVisits were more likely to prescribe antibiotics.[11] Without face-to-face contact, physicians might take what they view as a more conservative approach and prescribe more frequently which could lead to the adverse consequence of increased antibiotic resistance. Several large randomized trials of home monitoring for those with chronic illness have not found any benefit. In fact, one recent study found that home monitoring for older adults may lead to more hospitalizations and increased risk of death.[12] One potential explanation for the higher risk of death is that the frequent monitoring triggered more tests which led to harm.

These findings emphasize several points. The first is that despite the many evaluations of telehealth, there is much more to learn about the impact of telehealth on quality. Second, the growth of telehealth increases the need for population-based quality measures (for example, the quality of care provided to patients with dementia) instead of our current quality measures which are often delivery specific (for example, nursing home quality measures). These quality measures will help ensure that care, whether in-person or via telehealth, is of high-quality. Lastly, it is hard to make blanket statements on whether a given telehealth technology is effective or ineffective. Rather, the impact of a given telehealth option will be helpful or harmful depending on the patient and context. This complexity makes it difficult for Medicare or other payers to make decisions on whether to pay for a given type of telehealth.

Telehealth may improve access, but not always for the populations we expect

One obvious appeal of telehealth is to increase access for patients who live in rural areas of the United States where there are few available providers. Telehealth has great potential in this respect and, indeed, many federal agencies include delivering care to rural or underserved communities in their definitions of telehealth.[7] However, when we think of telehealth options directed to patients, it is important to recognize that people who live in urban areas where there are many physicians may be those most likely to use telehealth. In our analyses of telephone-based care, the most common users were those who live in high income areas.[8] Prior national work using a national survey has found that the most common users of telehealth live in cities and have higher incomes and more education.[13]

At first blush, it may be surprising that patients who live in urban areas with ready access to providers would still prefer to use a telehealth option. In fact, many people even in these areas still have difficulty accessing care in a timely manner. For example, the majority of retail clinic users report having no primary care physician[14] and many telephone-based care users have no other contact with the health care system.[8] Also, because they often have greater availability and familiarity with some technology, more educated patients may be more willing to try these new innovations. Telehealth is also attractive because of its time-saving features, as it may allow one to avoid travel and wait times, certainly appealing to anyone working or with a family.

Recognizing that telehealth has broad-based appeal among patients is essential, because it is important that policies are not crafted just for rural communities. Also, if telehealth becomes widely available as a covered service via their insurance, most users may not come from underserved communities. This could contribute to overuse of care.

Telehealth can lead to lower costs per clinical encounter, but also could drive increases in health care spending by increasing the number of clinical encounters overall.

Telehealth has great potential to reduce health care spending. A recent study found that after-hours availability of telemedicine via a videoconference cart in nursing homes reduced the number of unnecessary hospital readmissions and led to almost $150,000 in savings per nursing home per year.[15] An eConsult system used by primary care physicians was associated with almost 20% fewer specialty referrals.[16]

We and others have documented that telehealth and other innovations can be cheaper than an in-person visit on a per visit basis. However, lower cost per visit does not ensure telehealth will

reduce costs. To reduce health care costs, telehealth options must replace in-person visits. The concern is that telehealth could increase costs by driving greater utilization of health care services. In other words, people who otherwise would not have sought care in the first place will use telehealth to get care. If this increased access and greater utilization leads to treatment that leads to improved health, then this new utilization is good for our society. If, however, this new use is overutilization, care that does not lead to improvements in health, then there could be increased costs without any added health benefits. The very advantage of telehealth, its ability to make care convenient, is also potentially its Achilles' heel. Telehealth may be "too convenient."

If the primary goal of telehealth is to reduce societal health care spending, then telehealth options that focus on eliminating high-cost medical events such as hospital admissions or specialty referrals are more likely to be effective. In contrast, telehealth options where the cost savings come from providing the same care more cheaply may be less effective in reducing spending. Any cost savings on a per visit basis may be trumped by an increase in utilization.

This possibility of overutilization can be tempered through payment reforms being considered by the Congress that focus on bundled payments. If telehealth is paid for under a fee-for-service payment then there is an incentive for overutilization. However, payments for managing a population of patients may be much more effective in driving more cost-effective use of telehealth tailored for individual patients and clinical scenarios.

Summary

I am a firm believer in the potential for telehealth and other delivery innovations to transform our health care system for the better. My hope is that twenty years from now, telehealth will be widely available. However, there are many complexities that I have highlighted that require further investigation and consideration. The growth of telehealth requires oversight to ensure that these new delivery models do three things: provide high-quality care, improve access to those who need it most, and are utilized in a cost-effective manner.

Again, let me thank you Mr. Chairman, Mr. Ranking Member, and members of the subcommittee for allowing me to appear before you today to discuss this important issue. I would be happy to take your questions.

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Mr. PITTS. Now a special welcome to my constituent. I call him Mr. Tom Beeman, but he is listed as Dr. Beeman. He is also Admiral Beeman.

But whichever title you would like, Tom, you are welcome. You are recognized for 5 minutes.

STATEMENT OF TOM BEEMAN

Mr. BEEMAN. Good morning, Mr. Chairman, Ranking Member, and distinguished members of the House Commerce Subcommittee on Health. My name is Thomas Beeman, president and CEO of Lancaster General Health. Thank you for allowing me to represent our perspective and share how 21st century technologies can benefit patients.

An integrated not-for-profit health system, Lancaster General Health, includes 690 beds, 40 outpatient sites, home care and infusion therapy services, a family practice residency program, the Pennsylvania College of Health Sciences, through which we educate over 1,600 future medical professionals annually. We employ over 7,100 employees and are aligned with a medical staff of over 1,000 physicians and advanced practice providers.

Our leadership defines telehealth as the use of technology to connect the right people at the right time and place in order to improve the patient experience and health outcomes. Today, through the use of Web-based solutions, the affordability of mobile devices, and an increasingly tech-savvy population, the innovative solutions are seemingly without limit. These innovative solutions help us to reach our patients outside the walls of our system and outside the confines of a traditional workday.

Our current state of technologies includes a HIMSS Level 7 integrated platform that spans all care settings and incorporates our $100 million investment in Epic as our electronic health record. Our investment in Epic connects providers with clinical evidence decision support tools and patients via our patient portal called MyLGHealth, which gives patients access to their medical record anywhere Internet is available. Additionally, our health system participates in Healtheway, connecting us with the national health information exchange.

With our limited time today, I would like to elaborate one example from the written testimony which highlights how we leverage our technological resources. This program is a pilot we call Care Connections. We know that a small percentage of the population accounts for most of the healthcare costs, most of which are generated through avoidable emergency department visits and inpatient stays.

Leveraging the information gleaned from our electronic health records and billing department, we learned that at Lancaster General Health 480 patients accounted for $36 million in charges between 2008 and 2009. With this in mind, in 2011 we launched the Superutilizer Project, which incorporates a multidisciplinary team of a case manager, lawyer, medical care providers, pharmacists, psychologist, and social worker to manage a group of 30 patients.

Since 2011, we have formalized the program and dubbed it Care Connections and expanded enrollment to 100 patients. Our latest results show that inpatient days in the hospital decreased by 84

percent and emergency department visits by 26 percent. Limited available cost data reveals after enrollment per-member per-month spend decreased $670 or for 100 patients savings of more than $800,000 in one year.

While this level of success requires superior clinical management and great effort on the part of a multidisciplinary team, the foundation upon which the program is built is telehealth. The entire Care Connections team is mobile, with secure iPads, iPhones, and laptops, upon which they connect in patient's homes using Microsoft Lync to have a visual connection with a provider in the office to allow for virtual communications, video conferencing, and patient education.

Care Connections helps decrease our operational needs for physical space while achieving our optimal goal of treating the patient in the appropriate setting and engaging them in their own care. This is further supported with alerts the team receives whenever any of their patients enter an emergency department in the area so we can continue to monitor and intervene in their care.

Finally, we also leverage commercial products such as Find My Friends mobile app to identify exact locations of our caregivers in the field to ensure the safety of our workforce.

Our written testimony includes other examples of programs that we have instituted at Lancaster General Health that similarly blend technology and medicine in exciting and collaborative ways. As care providers, we ultimately believe that better informed and better engaged patients lead to better health, and better health is the ultimate reform, the best and most definitive solution to controlling the ever-spiraling percent of GDP that the Nation spends on healthcare.

Mr. Chairman, it has been my honor to appear before you today. I would be pleased to respond to any questions that you or members of the subcommittee may have.

Mr. PITTS. Chair thanks the gentleman.

[The prepared statement of Mr. Beeman follows:]

"Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."
Committee on Energy and Commerce *Subcommittee on Health*
May 1, 2014, 10:00 a.m. in 2123 Rayburn House Office Building, Washington, D.C. 20515

Testimony: Thomas E. Beeman, PhD, FACHE
President and Chief Executive Officer, Lancaster General Health

Good Morning Chairman Pitts, Ranking Member Pallone and Distinguished Members of the House Subcommittee of Health. My name is Thomas Beeman, President and Chief Executive Officer, of Lancaster General Health[i]. Thank you for allowing me to represent our perspective and share how 21st century technologies can benefit patients. An integrated not-for-profit health system focused on population health, Lancaster General Health includes 690 beds with a separate Women & Babies Hospital, 40 outpatient sites, a free standing rehabilitation facility along with home care and infusion therapy. We employ over 7,100 employees, and are aligned with a medical staff of over 1,000 physicians. Additionally, we are positioned to prepare the healthcare worker of the future through the Pennsylvania College of Health Sciences[ii], offering undergraduate and soon, graduate medical education, for over 1,600 students. The vertical integration of a comprehensive healthcare workforce, including care delivery services and training, allows us to deliver our promise of advancing the health and wellbeing of the communities we serve.

Building the Connections

Our leadership defines telehealth in a broad sense as the use of technology to connect the right people at the right time and place. We are building care capacity without building beds with our digital infrastructure. By connecting patients to providers and care teams, we enhance scalable solutions, for communications, quality, access and patient engagement across all settings of care.

Our current state of technologies includes an HIMSS Level 7[iii] integrated platform that spans all care settings, extending into the home, workplace, and mobile health applications for ongoing care. We utilize Epic[iv], an electronic health record connecting providers with clinical evidence decision support

tools, a patient portal and a data warehouse for reporting and analytics. Additionally, our health system participates in Healtheway[v], connecting us with the national health information exchange.

We are presently leveraging innovative technologies to restructure care delivery by linking care-teams and providers with engaged patients to manage individuals and populations more effectively within and outside of traditional encounter based care. The use of digital medicine technologies expands our patients' synchronous and asynchronous access to health information and care team decisions.

Empowering the Consumer

One third of our 300,000 managed lives are enrolled in MyLGHealth[vi], a patient portal that allows for ongoing patient engagement. The portal enables direct patient outreach for health reminders, electronic visits for minor illnesses, viewing of test results, secure messaging, access to electronic care plans and online scheduling and payment. The patient portal also provides access to WebMD® Health Manager, personalized to each member, allowing each person to privately assess their health, receive personalized reports and recommendations as well as use tools that are specific to their own issues and interests[vii]. Home monitoring allows patients to enter data such as glucose levels, blood pressures and weights into the health record as a patient level flow-sheet. We are piloting integration for fitness trackers, and advanced remote monitoring to directly collect biometric data.

Evolving Delivery Models

Our technologies empower operational leadership to develop and mature new care delivery models, demonstrated by seventeen of our primary care practices recognized as advanced Patient Centered Medical Homes[viii] and by our capability to operate as an Accountable Care Organization, called the

Lancaster General Health Community Care Collaborative[ix], to promote concurrent quality improvements, and reduce variations through evidenced based standards.

Advanced visit planning allows patients to electronically answer questionnaires for health histories prior to in-person care encounters. Availability of data across the continuum, such as recognized health conditions and socio-economic barriers to care, allow timely interventions from connected care managers.

Analytics from health technologies are fundamental for managing populations. Leveraging registries to summarize patient and practice-panel level data allow our providers to have real-time actionable data for wellness visits. Providers can identify care gaps for screening and preventive care as well as disease specific management.

National Challenges

Like many healthcare organizations, we face the same challenges with provider shortages, distribution of specialists, ability to manage patients out of state in a mobile world, and the changing behaviors of information empowered consumers. In order to address these challenges, we have, like others, leveraged technology with the following guiding principles 1) strive for providers working to the top of their licensure, 2) identify alternative, lower cost methods for care access, and 3) empower the patient in health decisions through enabling technologies.

Managing the Highest Risk

LG Care Connections

One example, of which we are incredibly proud, is a pilot program we call LG Care Connections. Several years ago, we learned that approximately 50% of all healthcare costs for were generated by 5%-10% of the population. Leveraging the information gleaned from data gathered from our electronic health records and billing department, we learned that at Lancaster General Health, 480 patients accounted for $36 million charges between 2008 and 2009. With this in mind, in 2011, we launched a "Superutilizer Project" which incorporates a multidisciplinary team of a case manager, lawyer, medical care providers, pharmacists, psychologist and social worker to manage a group of 30 patients.

Since 2011, we have expanded this program to over 100 LG Care Connection patients, and our latest results show that inpatient visits for this group decreased by 67%, inpatient days in the hospital decreased by 84% and emergency room visits decreased by 26%. Limited available cost data reveals after enrollment per-member per-month (PMPM) spend decreases from $3489 PMPM to $2819 PMPM.

While this level of success requires great care and great effort on the part of the multidisciplinary care team, the foundation upon which the program is built is telehealth. We use technology to keep our providers linked with patients between visits. When the navigators are in the homes with the patients, they are using Microsoft Lync[x] to have a visual 'connection' with the provider in the office to allow for telephonic communications, instant messaging, video conferencing and training. Workforce safety is enhanced with the use of Find My Friends[xi] mobile app for identifying exact locations of our caregivers in the field.

Additionally, our LG Care Connection teams are aggressively trialing MyLGHealth with this high risk population to encourage engagement and 'ownership' of their medical conditions in a population that, in general, is subject to a "digital divide" due to low computer literacy[xii].

Leveraging our organization's significant investment in the Epic electronic health record, the LG Care Connections team can better connect and coordinate care for the patients in this program in all settings of remote care. The entire team is mobile with secure iPads, iPhones, and laptops. These mobile health tools have decreased our LG Care Connection program's operational needs for physical space as most of our encounters are being done in the community and patients' residences, away from the physical office practice space. Similarly, the care team receives alerts whenever any of these high-risk patients enter an emergency department in the area, whether at our system or elsewhere, so we can continue to monitor their care.

Our aim is to share the story of LG Care Connections because we believe it provides a snapshot of what is possible when we are able to blend the best of telehealth capabilities with the best of care delivery for one of our most vulnerable, high-risk populations.

Geriatric Services

Rigorous management of geriatric services is essential to drive quality outcomes and prevent avoidable readmissions thus reducing cost of care for the elderly. Presently, we have three geriatric offices, staffed with 19 providers (15 physicians and four certified nurse practitioners) who care for patients in office practices, nursing homes, acute care, and patients' homes. In 2013, we provided over 24,000 geriatric patient visits in office settings alone. Our providers serve as Medical Directors at 14 area nursing homes. We also provide lab services in 12 area nursing homes with the ability to access real time results and

support ongoing visits via our Epic Community Link[xiii], a structured method for extending a shared electronic record system to independent physician practices and community hospitals. We remotely monitor patients using our home health service. We provide medical supervision and care through over one hundred units in the community where we monitor weight and blood pressure to assess changes between nurse visits, thus providing ongoing and remote assessments. For example, if our geriatricians identify trends in weight gain in a cardiac patient, a clinical indicator of fluid retention from congestive heart failure, our providers can provide interventional care, potentially preventing admission to a hospital.

All of our strategic programs for geriatric services require enabling and connecting technologies in order to influence and improve geriatric care across the continuum. For example, we have the ability to provide consult service for all geriatric trauma patients; run a Physician House-call program to see patients who are at risk for being readmitted to the hospital or are too frail to leave their home without risk; and provide care and support at our Alzheimer's and Memory Care program. We are actively developing a "Hospital at Home" program and a mobile imaging service to remotely monitor patient encounters and feed images directly to our integrated electronic health record.

Oncology

In the summer of 2013, we opened the new Ann B. Barshinger Cancer Institute[xiv], a 100,000 square foot state-of-the-art facility that brings together a multispecialty team of providers, the most advanced technology in the region and an array of support services for patients and their families. Having all of our oncology specialists in one location makes it more comfortable and convenient for patients and

families to receive care, and facilitates on-the-spot consultations among physicians, ensuring timely treatment that progresses at the right pace. Our oncology teams provided services for almost 2,500 cancer patients in the last year. Thanks to LG Health's longstanding partnership with the Penn Cancer Network, our patients also have access to the academic expertise and resources of the Abramson Cancer Center—one of just 41 National Cancer Institute (NCI)-designated Comprehensive Cancer Centers in the country.

We utilize oncology configured modules called Beacon Oncology in our Epic health information technologies. Beacon lets physicians create treatment plans based on standard National Cancer Institute protocols and make treatment decisions guided by comprehensive decision support. Complicated treatment plans and chemotherapy cycles for cancer patients require multiple medications given at various intervals. The patient's complex schedule may require 6-12 months of pre-planning. The use of digital medicine provides longitudinal treatment care plans to follow the patient regardless of the exact location of disease intervention.

Kiosks are chosen by over 30 percent of patients at our state-of-the-art Ann B. Barshinger Cancer Institute to inform staff of their arrival for services. Patients can print their care itinerary, view appointment times and access personalized maps to direct them throughout the building. The kiosks allow patients to pay their co-pay and see any existing balances on their account. In the future, kiosks will assist with care delivery by allowing patients to request to speak to a chaplain, oncology navigator or other member of the care team. Requests will automatically route to their appropriate care team member.

Mobile devices such as iPads are also used by patients prior to seeing their care team members to review personal and family medical history, track current symptoms, and respond to questions to uncover any unmet social or spiritual needs. Using technology to ask these questions allows the patient to reflect on the responses privately and elicits responses that patients may not have felt comfortable sharing face-to-face. Collecting this information enables the care team to help the patient proactively before issues become a significant problem

With permission, we take digital photographs of our cancer patients. This capability provides additional privacy and safeguards to patient identification prior to provision of services including administration of costly and specialty drugs and infusions.

Patient Safety

Lancaster General Health is a national leader in Smart Pump integration. Use of these integrated pumps ensures safety, efficiency, and accuracy through a bidirectional interface that links the patient, medication order, and pump channel. Everything that happens on the pump is available in the electronic health record, increasing the reliability of information for informed decision making by clinicians. Our processes significantly reduce the programming errors risks from traditional infusion pumps that require manual programming. The uses of these integrated technologies are essential for the delivery of potentially harmful cytotoxic and chemotherapeutic agents delivered to our oncology patients.

Cautionary Thoughts

As an organization that has committed hundreds of millions of dollars to connect and integrally link health information, telehealth and digital medicine infrastructures, we close with a few cautionary thoughts. Successful implementation of health technologies requires a compelling and measurable

clinical or preventive health model for a defined population aligned with strong partnerships among information technology, operations, and leadership. Institutions should consider investments in pilots or proofs-of-concepts with strong evaluation metrics for success and return on investments, in order to identify potential scalability of telehealth tools. Disruptive innovations in healthcare using technologies must empower the consumer in managing their health and make better health decisions, rather than cause information overload, confusion and more health uncertainties.

Broader Trajectories

In summary, at Lancaster General Health, we are only beginning to realize the potential of telehealth in future delivery models. We are focusing the immediate enhancements of our telehealth portfolio on patient interactive tools such as video visits, interactive goal and care plans, and streamlining self-service preventive and screening exams. In the next five years, we expect to mature our use of digital health and customer relationship management technologies to advance our clinical contact centers to direct patients to the most appropriate and settings for care. We will require additional types of caregivers in our workforce to advance care management, such as navigators and health coaches, above and beyond those with the technical skills to maintain and sustain these complex technologies. Our aim is to maximize patient centric telehealth technologies to move to a new state of community health and well-being.

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[i] About Us - Lancaster General Health
[ii] Pennsylvania College of Health Sciences
[iii] HIMSS Analytics - Structure and Stage Detail
[iv] Epic: About
[v] About Healtheway
[vi] MyLGHealth
[vii] WebMD Health Manager - Personalize and Manage Your Health
[viii] Patient Centered Medical Home - Lancaster General Health

[ix] LG Health establishes ACO - Lancaster General Health
[x] Microsoft Lync – video conferencing and instant messaging
[xi] Find My Friends on the App Store on iTunes
[xii] Kontos E, Bennett G, Viswanath K. Barriers and Facilitators to Home Computer and Internet Use Among Urban Novice Computer Users of Low Socioeconomic Position. *Journal Of Medical Internet Research* [serial online]. October 2007;9(4):3.
[xiii] Epic: Connecting Independent Physicians
[xiv] Cancer Institute - Lancaster General Health

Mr. PITTS. Mr. Chard, you are recognized for 5 minutes for an opening statement.

STATEMENT OF GARY CHARD

Mr. CHARD. Good morning, Mr. Chairman and Ranking Member Pallone and members of the subcommittee. My name is Gary Chard, and I am the Delaware State Director for the Parkinson's Action Network. Thank you for the opportunity to speak before you regarding the role telehealth technology can play in the lives of Parkinson's disease patients in the 21st century. As a person with Parkinson's, please hear me with the voice of my fellow persons with Parkinson's moving and shaking right along with me.

I am a 62-year-old vibrant and healthy resident of the State of Delaware. I was diagnosed with this insidious disease in the spring of 2008 when I was anticipating another 10 to 15 years of productive work life. I am a financial representative by practice, as well as a husband, father, grandfather, church and community member of whom much was expected. To say that many of the hopes and dreams of my family, community members, and clients were dashed with the progression of my PD is an understatement.

I come to you today to tell you how technology can revolutionize the treatment and care of people living with PD and how it has personally helped me. Please hear me that the employment of telehealth technology is not limited to benefit only persons with Parkinson's or people in deep rural communities, but it is an asset that can provide safe, secure and in-depth diagnostic and evaluative care to the immobile and infirm, bringing them to experts who may otherwise be unaccessible.

Parkinson's Disease is a neurological disorder that stems from reduced dopamine production in the substantia nigra portion of the brain leading to tremors in the limbs, slowness of movement, rigidity, and impaired balance and coordination. It also exhibits itself through cognitive changes such as confusion, forgetfulness, loss of thought pattern, and sleep disruptions. If my voice begins to fade this morning, please recognize it is a typical example of my PD.

Parkinson's is a disease that impacts between 500,000 and 1.5 million Americans and has an economic burden of at least $14.4 billion a year in the United States, and prevalence is estimated to more than double by the year 2040.

With the advent of telehealth, my access to Dr. Ray Dorsey, my diagnosing specialist in Rochester, New York, or Dr. David Perlmutter, my neurological health coach in Naples, Florida, can be achieved with the use of existing and improving technology, thereby providing me with the counsel and tracking I rely on in a safe and comfortable environment, saving me and my family costs for care, travel, and productive time.

With use of a telehealth link established between Dr. Dorsey and the University of Delaware's Nurse Managed Health Care facility, I can now safely visit with Dr. Dorsey on a frequent basis consistent with my diagnosis in a medically staffed local facility and receive his evaluation of my disease progression and recommendation for treatment.

Part of the invaluable experience of telehealth is a real-time visit with my specialists. As long as I am in a private environment, I

feel that I can speak as candidly with my doctor as I can when face to face. The improvements of this technology serve to enhance and expedite the one-on-one interaction with a specialist, not detract from it. I can say that I don't feel as comfortable as I do with an office visit, but in lieu of traveling long distances, waiting to be seen in an office, and experiencing the other logistics of planning for an office visit, telehealth technology serves to provide me with a doctor-patient consult that surpasses searching for and traveling to a specialist who may be hundreds of miles away or more.

In establishing the telehealth link at the University of Delaware, issues of patient privacy, across-state licensure, reimbursement, and the always looming liability immediately came into play. It took the interaction of several legal and government channels months of negotiating before allowing Dr. Dorsey from New York to speak with me in a doctor-patient relationship in Delaware, leaving me without interaction with a medical specialist for more than 18 months. Why? Because the legal, financial, and licensure channels are so convoluted that it took that long to sort through the terms and conditions in order to allow this exercise to proceed.

For the Parkinson's community, telehealth has the potential to be an extremely useful tool in providing greater access to specialists, such as neurologists or movement disorder specialists. In order to provide the data needed to inform the needed policy changes, Dr. Dorsey, in partnership with the National Parkinson Foundation, is currently executing a Patient Centered Outcomes Research Institute-funded study on the quality and effectiveness of treating people with Parkinson's via video conferencing. Dr. Dorsey and NPF hope to build on previous smaller studies to prove that expert care is important for Parkinson's patients and that it can be delivered via virtual house calls.

In conclusion, for people with Parkinson's or other complex diseases, I believe telehealth is a present day solution to address the serious issue of access to proper medical care. Through advocacy organizations such as the Parkinson's Action Network, I look forward to working with members of the committee to find commonsense solutions to the hurdles that face the utilization of telehealth in order to improve the quality of care for patients across the country.

Thank you again for allowing me to testify today, and I would be happy to answer any questions.

Mr. PITTS. The chair thanks the gentleman.

[The prepared statement of Mr. Chard follows:]

United States House of Representatives

Committee on Energy and Commerce

Subcommittee on Health

Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients

Testimony of Gary Chard

Delaware State Director

Parkinson's Action Network

May 1, 2014

Good morning, Chairman Pitts, Ranking Member Pallone, and members of the Subcommittee, my name is Gary Chard and I am the DE State Director for the Parkinson's Action Network. Thank you for the opportunity to speak before you regarding the role telehealth technology can play in the lives of Parkinson's disease (PD) patients in the 21st century. I recognize this is an information-gathering session. So, as a person with Parkinson's, please hear me with the voice of several million of my fellow persons with Parkinson's moving and shaking along with me.

I am a sixty-two year old vibrant and healthy resident of the State of Delaware. I was diagnosed with this insidious disease in the spring of 2008, when I was anticipating another 10 to 15 years of productive work life. I am a Financial Representative by practice, as well as a husband, father, grandfather, church and community member of whom much was expected. To say that many of the hopes and dreams of my family, community members, and clients were dashed

with the progression of PD in me is an understatement. I come to you today not to share how my role in personal and social life has been tangentially skewed, but rather to tell you how technology can revolutionize the treatment and care of people living with PD and how it has personally helped me.

Please hear me that the employment of telehealth technology is not limited to benefit only persons with Parkinson's or people in deep rural communities; but it is an asset that can provide safe, secure, and in-depth diagnostic and evaluative care to the immobile and infirm, bringing to them experts who may otherwise be inaccessible. I am a capable person who can still walk, drive, move about unaided generally, after living with the disease progression for the past six years but seek the wise council of neurologists and movement disorder specialists to understand the changes in cognition and mobility that are occurring and help me remain a contributing member of the various life communities in which I participate.

Parkinson's disease is a neurological disorder that stems from reduced dopamine production in the substantia nigra portion of the brain, leading to tremors in the limbs, slowness of movement, rigidity, and impaired balance and coordination. It also exhibits itself through cognitive changes such as confusion, forgetfulness, loss of thought pattern, and sleep disruptions. If my voice begins to fade this morning, please recognize it as a typical example of my PD. Parkinson's is a disease that impacts between 500,000 and 1.5 million Americans and has an economic burden of at least $14.4 billion a year in the United States. The prevalence is

estimated to more than double by the year 2040.[1]

PD is an individual's disease affecting me similarly, but not the same, as it affects my brethren in diagnosis and in treatment. It is progressive and not accurately defined. There is no definitive medical diagnosis or clinical standard of care for those who are recognized as people with Parkinson's. Medications are available, but are only symptomatic and come with a set of side effects and will only work for a short number of years. There is no cure; merely, the promise of living at a reduced mental and physical speed while the surrounding world moves along normally. Many people with Parkinson's rely on neurologists and movement disorder specialists, who are few in number, overbooked with appointments from those in need, and usually affiliated with specific research university hospitals or located in urban centers that are difficult to access. In my case, living in Delaware, I have no movement disorder specialist in my state. Rather, I have to be lucky enough to find an appointment with one at University of Pennsylvania Hospital in Philadelphia or travel an hour or more to Johns Hopkins University Hospital in Baltimore.

With the advent of telehealth, my access to Dr. Ray Dorsey, my diagnosing specialist in Rochester, NY, or Dr. David Perlmutter, my neurological health coach in Naples, FL can be achieved with the use of existing and improving technology, thereby providing me with the counsel and tracking I rely on in a safe and comfortable environment, saving me and my family costs for care, travel, and productive time. With the use of a telehealth link established

[1] Kowal, Stacy, MSc, et al. The current and projected economic burden of Parkinson's disease in the United States. *Movement Disorders, 28*, 311-318.

between Dr. Dorsey and the University of Delaware's Nurse Managed Health Care facility, I can now safely visit with Dr. Dorsey on a frequent basis consistent with my diagnosis at a medically-staffed local facility and receive his evaluation of my disease progression and recommendation for treatment. If his recommendation includes a change in medication, it is then sent to my primary care physician for prescription. Further, telehealth can be established via a Skype or FaceTime styled secure link with communications equipment present in most homes today.

Part of the invaluable experience of telehealth is the real-time visit with my specialists. As long as I am in a private environment, I feel that I can speak as candidly with my doctor as I can when face-to-face. The improvements of this technology serve to enhance and expedite the one-on-one interaction with a specialist, not detract from it. I can say that I don't feel as comfortable as I do with an office visit; but, in lieu of traveling long distances, waiting to be seen in an office, and experiencing the other logistics of planning for an office visit, telehealth technology serves to provide me with a doctor-patient consult that surpasses searching for and traveling to a specialist who may be a hundred miles or more away.

In establishing the telehealth link at the University of Delaware, issues of patient privacy, cross-state licensure, reimbursement, and the always-looming liability immediately came into play. It took the interaction of several legal and government channels months of negotiating before allowing Dr. Dorsey, from New York, to speak with me in a doctor-patient relationship in Delaware, leaving me without interaction with a medical specialist for more than eighteen months. Why? Because the legal, financial, and licensure channels are so convoluted that it

took that long to sort through the terms and conditions in order to allow this exercise to proceed.

For the Parkinson's community, telehealth has the potential to be an extremely useful tool in providing greater access to specialists, such as neurologists or movement disorder specialists. In order to provide the data needed to inform needed policy changes, Dr. Dorsey, in partnership with the National Parkinson Foundation (NPF), is currently executing a Patient Centered Outcomes Research Institute-funded study on the quality and effectiveness of treating people with Parkinson's via videoconferencing. Dr. Dorsey and NPF hope to build on previous smaller studies to prove that expert care is important for Parkinson's patients and that it can be delivered via "virtual house calls."

Similar studies have shown that telemedicine can reduce hospitalization and keep people living safely and independently for longer, which are major concerns for people with Parkinson's and their families.[2] In addition, a recent study found that while seeing a neurologist increases quality of life, 42% of people with Parkinson's are not seeing a neurologist for their care. [3]The study also found that seeing a neurologist leads to better clinical outcomes and may lead to a longer life for people living with Parkinson's.

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[2] Darkins, M.D., Adam, et al. "Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions." *Telemedicine and e-Health*. 14.10 (2008): 1118-26

[3] Willis, AW, et al. "*Neurologist care in Parkinson disease: A utilization, outcomes, and survival study.*" Neurology. 77.9 (2011): 851-7.

In conclusion, for people with PD or other complex diseases, I believe telehealth is a present-day solution to address the serious issue of access to proper medical care. Through advocacy organizations such as the Parkinson's Action Network, I look forward to working with members of the Committee to find common sense solutions to the hurdles that face the utilization of telehealth in order to improve the quality of care for patients across the country.

Thank you again for allowing me to testify today and I would be happy to answer any questions.

Summary

Gary Chard, Delaware State Director for the Parkinson's Action Network, is a 62 year old person living with Parkinson's disease (PD). PD is a progressive, neurological disorder that impacts between 500,000 to 1.5 million Americans. As PD affects each person slightly differently, many people rely on neurologists and movement disorder specialists to receive specialized treatment and care. Unfortunately, neurologists and movement disorder specialists are few in number and usually affiliated with specific research university hospitals or located in urban centers that are difficult to access.

As the state of Delaware does not have a movement disorder specialist, Gary accesses Dr. Ray Dorsey, a movement disorder specialist located in New York, to receive specialized care via telehealth in a safe and comfortable environment, saving him and his family costs for care, travel, and productive time. Telehealth can be established via a Skype or FaceTime styled secure link with communications equipment present in most homes today.

For the Parkinson's community or other complex diseases, telehealth has the potential to be an extremely useful tool in providing greater access to specialists, such as neurologists or movement disorder specialists. Data shows that access to PD specialists can reduce hospitalizations, keep people living safely and independently, and lead to better clinical outcomes.

Mr. PITTS. And now recognize Ms. Jones 5 minutes for an opening statement. If you will just pull the mike a little bit closer, that helps members hear. Thank you.

STATEMENT OF KOFI JONES

Ms. JONES. Mr. Chairman, Mr. Ranking Member, and members of this committee, I thank you for this tremendous opportunity of testifying before you today. I am here today on behalf of my company American Well. Based in Boston, Massachusetts, American Well was founded in 2006 by two brothers who also happen to be physicians. Their goal was simple: transform healthcare delivery through technology and improve access to quality care by removing traditional barriers to healthcare delivery, such as distance, mobility, and time constraints.

American Well's telehealth platform is used by health plans, individual providers, pharmacies, delivery networks, hospitals, and employers all over the country offering real-time, synchronous, audiovisual, HIPAA-compliant, and secure on-demand health care from any location to any location, on the Web or even in the palm of your hand through mobile apps. And health plans like WellPoint, through its LiveHealth Online national telehealth initiative, have made telehealth encounters an integrated benefit for all of their customers.

These technologies offer the opportunity to move appropriate care to lower-cost settings, into the home or workplace, or bring care to where it is currently not available, like schools, prisons, or rural areas, lacking facilities or healthcare providers. Telehealth has been shown to reduce unnecessary ER utilizations, hospitalizations, or even general overhead, as well as support preventative care efforts for chronic care patients.

I am acutely aware that I sit this morning before a panel of distinguished policy leaders who have already heard from a knowledgeable panel and know all too well that we as a Nation are at a critical juncture in our healthcare journey. However, despite the accelerating momentum for telehealth we have many questions left to answer as a Nation before telehealth can reach its full potential. That is why I applaud this committee for having this hearing.

First, I would like to raise an issue that should be the backbone of this entire discussion: patient safety. Medical boards and similar boards across the Nation not only deal with licensure, but what is considered appropriate practice or clinically appropriate care to provide to patients.

Now, currently there exists an inconsistent patchwork of State laws that have inhibited the deployment of telehealth in both the private and public sectors. There have been several proposed solutions to this, including the Telehealth Modernization Act, a bipartisan measure introduced this past December by Representatives Doris Matsui and Bill Johnson, which provides States with clear definitions and principles they can look to for guidance when developing new policies that govern telehealth. And just this past weekend the Federation of State Medical Boards ratified a new model national telehealth policy. The FSMB's new model policy marks the first time the medical community has unilaterally acknowledged

the extremely beneficial impact that telehealth has had in the practice of medicine.

Whatever the solution to the 50 state regulatory environment, we need to strike a balance between innovation and patient safety.

Second, we face issues with licensure. Currently, there exists a home field rule: Providers must be licensed in the state where they provide care. These days, doctors and other healthcare professionals can be physically located in one state while their expertise is required in another.

Licensure is a lengthy and costly process for providers and each state has its own set of rules. Now, there are many ways to address this, one of which is the bipartisan TELE–MED Act introduced by Representatives Frank Pallone, ranking member of this subcommittee, and Devin Nunes, and that would allow Medicare patients to be cared for by a licensed provider in any state.

Ultimately, the issue of licensure will need to be addressed if we are to allow telehealth to reach its full potential, and that solution will need to both allow providers to provide care when and where it is needed while ensuring the oversight necessary to ensure patient safety.

And finally, we should address the issue of payment: reimbursement. The Social Security Act defines telehealth and how Medicare will reimburse for telehealth services. That language was crafted in the year 2000, 7 years before the first iPhone, the iPhone you now can get real-time live health care on. Imagine what this language would look like if we crafted it today.

This outdated language says that patients can only receive care if they are in a rural area presenting from a clinical site. That means patients still need to get into the car to receive care, and cities don't count. This is widely viewed as one of the major barriers to the full and complete deployment of telehealth.

In summary, by the end of the decade, the terms online care, virtual care, telemedicine, and telehealth will all be antiquated. Telehealth will simply just become health care and replace a significant portion of in-person care. As these technologies are proven to improve outcomes, they will become the status quo.

Thank you again for the opportunity for presenting before you today, and I am happy to answer any questions.

Mr. PITTS. The Chair thanks the gentlelady and thanks all the witnesses for their opening statements.

[The prepared statement of Ms. Jones follows:]

AMERICAN WELL™

Statement from:
Kofi Jones, Vice President of Public Affairs
American Well

For the U.S. House of Representatives
Energy and Commerce Committee
Subcommittee on Health

Telehealth to Digital Medicine:
How 21st Century Technology Can Benefit Patients

May 1, 2014

Mr. Chairman, Mr. Ranking Member, and Members of this Committee – I thank you for the tremendous opportunity of testifying before you today. I am here today on behalf of my company, American Well, one of our nation's leading telehealth technology providers. Based in Boston, Massachusetts, American Well was founded in 2006 by two brothers who happen to be physicians. Our mission is to transform healthcare delivery through technology and improve access to quality care by removing traditional barriers to healthcare delivery such as distance, mobility, and time constraints. American Well has always focused on demonstrating value and effectiveness, bringing overall satisfaction to patients who rely on our solution, and being an integral partner in the delivery of quality health care.

I am acutely aware that I sit this morning before a panel of distinguished policy leaders who know all too well that we, as a nation, are at a critical juncture in our healthcare journey. Even prior to the expanded coverage through the Affordable Care Act, our health care system was facing enormous headwinds ranging from access to costs. And now, millions of newly-eligible Americans are entering an already heavily burdened health care system.

Primary care shortages, specialty care diversification, a thinning pool of health professionals, and rural access challenges – will continue to rise.

As a nation, we must do what we always do in times of struggle. We must enterprise, we must invent, we must innovate. And I'm pleased to report that we have been. Sitting squarely at the intersection of innovation, technology, and healthcare – is telehealth.

Telehealth – real-time, synchronous audio-video encounters between patients and providers – presents the opportunity to reverse the longstanding paradigm of placing the burden on patients to seek care where it's physically available. Telehealth brings healthcare directly to the patient, when and where they need it – similar to an old-fashioned "house call." It's our latest tool to improve access and quality of care, while doing it in a cost-efficient manner using a patient-centered approach.

These technologies offer the opportunity to move appropriate care to lower cost settings – into the home or the workplace, or bring care to where it is currently not available – like schools, prisons, or rural areas lacking facilities or healthcare providers.

Telehealth has been shown to reduce unnecessary ER utilization, hospitalizations, and even general overhead, as well as support preventative care efforts for chronic care patients.

Telehealth delivers safe, secure, and cost-saving access to healthcare for Americans who face a multitude of barriers to receiving care in person.

As I said earlier, we have been doing our job as innovators. Momentum for telehealth is accelerating at an undeniable rate.

For example, American Well's telehealth platform is the industry's leading telehealth solution, connecting state-licensed providers and patients for live, immediate, synchronous audio-visual, and clinically meaningful encounters from any location to any location, at any time. Care can be accessed over the web, via smart phone or tablet – literally care in the palm of your hands. Our patented, web-based technology addresses traditional barriers to healthcare access while enabling providers to deliver quality care in a flexible, convenient manner. The system is designed to be HIPAA compliant and secure, and is able to integrate with back-end systems (e.g., claims and gaps-in-care systems, Electronic Medical Records) to support robust continuity of care and information-driven consultations. The solution can integrate with diagnostic and medical devices, enabling truly meaningful and informed care, and supports multi-disciplinary collaboration, including Accountable Care Organizations and Patient Centered Medical Homes.

We clearly don't stand alone. Hospitals and delivery networks like the Cleveland Clinic have been examining their business models. Movement towards population-based payment has sparked an exploration around managing the cost of care, treating the patient as a "whole", and a race to lead in innovation. As a result, hospitals and networks of all shapes and sizes across the nation are actively considering the value of online medical care, both for urgent, acute, symptomatic care, as well as chronic care management.

Physicians in both hospital and private practices are embracing telehealth to extend their reach and follow up with their patients at home. Even retailers and pharmacies like CVS and Walgreens are getting on board, offering their customers access to medical services by combining onsite providers with off-site telehealth-based physicians.

And the dollars are following the interest. As we enter 2014, nearly all state Medicaid programs now reimburse for some form of telehealth service. Nearly half of all states mandate telehealth reimbursement for commercial plans, often on par with in-person visits. These policies are rapidly expanding, with new proposals emerging on an ongoing basis.

And the U.S. Department of Veterans Affairs, arguably one of the most telehealth-progressive agencies in the nation, has not only eliminated co-payments for in-home telehealth, but supported nearly early 1.5 million episodes of care in 2012 – reducing bed stays, hospital admissions, and delivering nearly $2,000 in savings per patient.[1]

And of course, you can't underestimate the value of consumers, who are driving the discussion now more than ever – most evidently by using mobile technologies that put healthcare decision making in the palm of their hand. Mobile devices can significantly mitigate time and distance barriers, regardless of location, socio-economic status, or mobility issues. iOS and Android devices literally make on-demand , affordable healthcare – like that enabled by American Well – available anytime, anywhere. It is the epitome of patient-centered health care.

However, while innovation in telehealth progresses and doctors, hospitals, and governments take positive steps to encourage this kind of care delivery, we still have many questions to answer as a nation before telehealth can reach its full potential. This is why I applaud the committee for having this hearing. It is an ideal opportunity to both identify the great opportunity that exists, and to honestly pin point the challenges.

As I spend the entirety of my professional life working to identify and try to solve the challenges that exist within the telehealth environment, I'll do my best to do the same here.

Ensuring Patient Safety and Clinical Permissibility

First, I would like to raise an issue that should be the backbone of all of this discussion – patient safety.

[1] *Telehealth Services in the Department of Veterans Affairs* - Adam Darkins, Chief Consultant for Telehealth, U.S. Department of Veterans Affairs

Medical Boards, and similar boards across the nation, not only deal with licensure, but what is considered appropriate practice or clinically permissible care to provide to patients. Currently, there exists an inconsistent, patchwork of state laws that have inhibited the deployment of telehealth in both the private and public sectors.

With 50 sets of rules, and 50 different definitions of what telehealth is, both providers and patients are in a state of limbo, asking questions such as: Can I, as a provider, deliver care while still being compliant in all 50 states? Can I, as a patient, trust the care I receive via telehealth is safe and secure? These uncertainties have created an unnecessary barrier to realizing the true promise of telehealth.

There have been several proposed solutions to this as well:

The *Telehealth Modernization Act* (H.R. 3750), a bipartisan measure introduced this past December by Representatives Doris Matsui and Bill Johnson, both members of this Committee, provides states with clear definitions and principles they can look to for guidance when developing new policies that govern telehealth. These principles are consistent with the existing standards for in-person care so as to ensure the safe and secure use of telehealth in medical practice.

And just this past weekend, the Federation of State Medical Boards (FSMB) ratified new model national policy - the *Appropriate Use of Telemedicine in the Practice of Medicine* – at its annual meeting in Denver. This marks the first time the medical community has unilaterally acknowledged the impact technology has had on the practice of medicine, and like the *Telehealth Modernization Act*, offers guidance to states looking to modernize their existing telehealth rules.

Both of these pivotal documents support the concepts that a treatment relationship can be established online, and that every telehealth encounter should uphold the same standard of care as a face-to-face encounter, confirm the identity of the patient and provider, establish access to medical history, include full documentation, and foster continuity of care – the very standards which are upheld in doctor's offices, clinics, and hospitals throughout the country.

Whatever the solution to the 50-state regulatory environment, we need to strike the balance between promoting further innovation and evolution in healthcare, while ensuring the proliferation of verifiably safe and secure telehealth models.

Licensure

Second, we also face issues with licensure.

Currently, there exists a "home field rule." Providers must be licensed in the state where they provide care. Before recent technological advances, this wasn't as much of an issue. Providers generally lived and worked in the same state. Now, doctors and other healthcare professionals can be physically located in one state, while their expertise is required in another. An endocrinologist in Boston may have expertise desperately needed in a rural Texas community. But to provide direct care to patients via telehealth, that physician needs a Texas license as well. Licensure is a lengthy and costly process for providers, and each state has its own rules around standards-of-care and scope-of-practice regulations, particularly where telehealth is concerned.

There are many ways to address this. In 2000, the National Council State Boards of Nursing launched the Nurse Licensure Compact to expand the mobility of nurses. The Compact allows nurses to have one multistate license, through a streamlined process without additional applications or fees, with the ability to practice in both their home state and other party states. To date, it's been adopted by 24 states.

The FSMB is now considering another approach that would result in facilitated multiple state licenses. This method would accelerate the licensure process for physicians who meet the eligibility requirements by consolidating application paperwork.

Another approach was signed into law just under two years ago, the bi-partisan STEP Act for Department of Defense healthcare professionals does away with location requirements. This spurred the bipartisan VETS Act (H.R. 2001), currently pending before Congress, which would enable Department of Veterans Affairs' health professionals to serve any veteran in the U.S. without the need for multiple state licenses.

And the bipartisan TELE-MED Act, H.R. 3077, introduced by Representative Frank Pallone, the Ranking Member of this Subcommittee, and Representative Devin Nunes, would allow Medicare patients to be cared for by a licensed provider from any state.

Ultimately, the issue of licensure will need to be addressed if we are to allow telehealth to reach the potential of balancing provider supply and patient demand – as these two variables do not particularly pay attention to state boundaries.

Whatever the solution, we will still need an effective and efficient system to both allow providers to provide care when and where it's needed, while providing the oversight necessary to ensure patient safety.

Reimbursement

Finally, we should address the issue of payment – reimbursement.

As I stated earlier, many states have mandated commercial payers to reimburse for telehealth consultations, but such practices are not necessarily required. Health plans like WellPoint, through its LiveHealth Online national telehealth initiative, have made telehealth encounters an integrated benefit for all of their customers over the next 24 months. Patients pay their standard cost-share to visit with a state-licensed and credentialed physician, specifically trained in providing care via telehealth.

But we cannot have a conversation about telehealth reimbursement without talking about Medicare. CMS sets the tone for healthcare in this nation, and both public and private leaders follow suit.

Section 1834m of the Social Security Act defines telehealth and how Medicare will reimburse for telehealth services.

This language was crafted in 2000. One year before the IPod was invented. Three years before the first Toyota Prius hybrid came off the assembly line, and 7 years before the first IPhone – the IPhone you can now get real time, audio/visual, HIPAA compliant, informed healthcare on.

Imagine what this language would look like if we crafted it today.

The outdated language from 2000 says that patients can only receive care if they are in rural area, presenting in a clinical originating site. That means patients still have to drive to receive the care they could actually get on this phone in order for reimbursement to take place, and if they live in a city, all bets are off. Considering the wait times to see a provider in some of our nation's urban areas, this appears prohibitive.

This rural, originating site stipulation contained within Section 1834m has had a powerful effect. The majority of the 46 states which have used the latitude afforded them to create their own telehealth reimbursement policies under Medicaid, have basically mirrored the Medicare policy.

Further, many state medical boards have implemented telehealth policies which require patients to be at originating sites in order for care to be considered "compliant."

Section 1834m is widely viewed as one of the major barriers to the full and complete deployment of telehealth. Granted, re-writing it would substantially increase access, but naturally lead to questions of utilization and cost – since more recipients would have access to care electronically.

However, Congress, and the Congressional Budget Office would have the insight of the US Department of Veterans Affairs, payers like WellPoint, and some of the more innovative state Medicaid programs to look towards as it examined questions of health outcomes, efficiencies, and cost savings. Colorado, Kansas, and Washington are among the states which have used various tools at states disposal to create thoughtful Medicaid reimbursement practices.

Further, organizations like the American Medical Association, the American Academy of Family Physicians and, West Health have also committed to examining access and cost savings associated with the wide utilization of telehealth.

Much of this work has been done.

Conclusion

In summary, by the end of the decade, the terms online care, virtual care, telemedicine, and telehealth will all be relegated to the history books. Just as this generation conducts its banking transactions on their iPhones and has access to nearly every product and service online, students currently entering medical school will start practice in a healthcare environment where technology and care delivery are intertwined.

Telehealth will simply become healthcare, and replace a significant portion of in person care. As these technologies are proven to improve outcomes and reduce costs, they will become the status quo.

The question for us is, how do we lay the infrastructure to ensure that these technologies are safe, secure, efficient, accessible, and cost efficient, and I, for one, am eager to be a partner to you.

Thank you again for the opportunity to testify today, and I am happy to answer any questions.

Mr. PITTS. We will now begin questioning, and I will recognize myself 5 minutes for that purpose.

And let me start with you, Tom. How has the advancement of telehealth in recent years benefitted your health system? Be specific, if you can.

Mr. BEEMAN. Let me address what the electronic health record has allowed us to do in our ability to leverage the new data that we have to deploy our resources more efficiently. Before we deployed the electronic health record, we could not tell you how many diabetics we had in our health system. We care for about 300,000 patients in our community. We could tell you we have a billion bits of data, but we could not marshal that data to have good information for our patients.

Today, I can tell you that we have 280 diabetics in our Lincoln Family Medicine practice. We know that 270 of them are consistent with their regimen for insulin, 10 of them are noncompliant. We can deploy a nurse navigator on those 10 and really assist them in getting the resources that they require. As an example, we found one of our patients was a gambler, had gambled all his money, could not buy the insulin. We can help through resources to get him that insulin to really help improve his life, and that really is what, you know, health care is really about.

Just the other thing I would mention on the Care Connections. We are talking about medical assistance patients that are the most difficult, most troubled patients that we have in our community, the most vulnerable. They use multiple sites for health care. By coordinating their care, leveraging technology, we can bring them the dignity that they need and want and deserve, and we can also dramatically reduce the cost of medical assistance care, which many of my colleagues say can't be done. And we actually believe that you can actually manage those patients' care more effectively if you really concentrate on marshaling those costs rather than spending more money on their care.

Mr. PITTS. Just a quick follow-up. The administrative burden that Congress and the Federal Government has placed on providers also takes time away from patients. It is something this committee sought to partially address in Dr. Burgess' SGR reform bill, H.R. 4015, but much more needs to be done. In the meantime, are there ways in which you could imagine telemedicine easing the administrative burden on providers, thereby freeing up more time for the care patients?

Mr. BEEMAN. I think it already has. We routinely use e-visits for which we don't get paid for, but most of my physicians would say they would rather not have inappropriate visits to their office and respond through e-visits. Of course, they would prefer to get paid for it, which creates all sorts of headaches for us as far as how do you incent your physicians to focus on quality when they can't get paid for those. But most of them respond at night, early in the morning to a lot of their patients. So I think there are opportunities to really break through some of the barriers.

I think the best thing that Congress can do is to really focus on things like bundled payment, the MSSP program, and helping us be more at risk, and then we can leverage those technologies. And

we want to be held accountable for quality and cost. Let us do that and help break down those barriers, sir.

Mr. PITTS. Dr. Mehrotra, in health care we have frequently seen new technologies promise to save money but in reality creating a new way for providers to bill the Medicare program. If Congress were to act to encourage further adoption in Medicare or other healthcare programs, how can we ensure that telemedicine actually does deliver the savings that it promises?

Dr. MEHROTRA. I think you raise a critical issue, and I would maybe echo what Dr. Beeman said, which is that it is a combination of having accountability through quality metrics that actually say this provider, what is the quality of care that they are providing for this patient, irregardless of how they are providing that care; as well as the financial responsibility through bundled payment and other programs that actually make sure that they have the flexibility with the single payment to decide what is best for that patient in that clinical encounter. And I do fear that encouraging telehealth through fee-for-service might be a mechanism to actually increase healthcare spending.

Mr. PITTS. Dr. Bashshur, in your opinion, can the recognition and expanded use of telemedicine in Medicare help lower costs for patients and the government?

Mr. BASHSHUR. The expansion of reimbursement for Medicare patients is not likely to increase the cost to the government, but it all depends how it is administered. I think there are good ways and bad ways of doing things. The telemedicine intervention itself, the modality in telemedicine does not inherently encourage increased use of service. We have plenty of evidence and programs that have been pondered where the patients don't pay out of pocket where the use of telemedicine has been extremely low.

The point that my colleague, Dr. Mehrotra, raised regarding overuse of service has not been borne by any facts in the situation. Among all programs delivering care in the country none has experienced a flood of people using this modality of care. It has been extremely low.

Mr. PITTS. Thank you. I have other questions, but my time has expired, so I recognize the ranking member, Mr. Pallone, 5 minutes for questions.

Mr. PALLONE. Thank you, Mr. Chairman.

I wanted to start with Mr. Chard. Thank you for being here today to share your experience in using telehealth to help you manage your Parkinson's and maintain the quality of your life. It is important for people like you to speak out about when the healthcare system works for them and when it doesn't, and stories like yours are why I care a lot about this issue.

So I wondered if you could tell us a little more about your telehealth experience. What was it like before you had the ability to receive care using telehealth? Are there times when you had to travel to see a specialist because they weren't licensed in Delaware? And what you have liked about your telehealth experience. In what ways, if any, do you think it could be improved? It is a lot.

Mr. CHARD. Thank you, Mr. Pallone. To start with, when I moved from upstate New York to Delaware, I had already been diagnosed

with Parkinson's disease, and I began researching looking for a neurologist that could help with my symptoms and give me continuing diagnosis and treatment. And I was unable to find a movement disorder specialist in the State of Delaware.

To my pleasure, Dr. Dorsey, my diagnosing physician, moved down to Johns Hopkins University, which brought him into range at least at Baltimore, a little over an hour drive for me. But it was, you know, a half day, three-quarters of a day out of production. I would take my wife with me to make sure we got there safely in and out.

So the experience in moving to Delaware was that we were unable to find the resources that we needed in the state. We had the opportunity of driving up to Pennsylvania, but it was one way or the other we had to travel in order to find the resources.

In the interim Dr. Dorsey moved back to Rochester, New York, and the aspect of telehealth has been introduced through Dr. Dorsey and the University of Delaware, and as I mentioned earlier in my testimony, the licensing issues were constricting the ability to access Dr. Dorsey, who was my primary neurologist, movement disorder neurologist. So since the telehealth link has been established, I have been able to meet with Dr. Dorsey via the telehealth link in a secure setting with secure information privately and be able to share with him and he would share with me his opinion and recommendations for my care.

Mr. PALLONE. And just going back to the last part, in what ways, if any, do you think we could improve telehealth experience?

Mr. CHARD. Technologically, I think the improvements are all pretty strong right now. Legislatively, I would think that easing the process and making sure that there is a reimbursement program. It is out-of-pocket costs right now. Making sure there is a healthcare reimbursement program of some sort to ease the cost of establishing that telehealth link would be beneficial.

Mr. PALLONE. Well, thank you very much.

Let me ask Dr. Mehrotra, again, thank you for sharing your perspective. But you noted the use of telehealth has a lot of potential to improve the healthcare delivery system and the Medicare and Medicaid programs are tremendously important. So as we think about expanding uses to telehealth in Medicare and Medicaid, we have got to make sure we are thoughtful, we go about it in the right way, particularly with regard to patient safety and cost effectiveness. So could you just speak a little more about the risks that my colleagues and I should consider as we look at expanded use of telehealth?

Dr. MEHROTRA. I think maybe an analogy would be helpful in this circumstance as we think about many patients who will benefit and many patients who may not benefit. And I might use the example of cardiac catheterization. Cardiac catheterization for many patients, either as a diagnostic or treatment for heart disease, is life saving.

On the other hand, as you are well aware from some of the press as well as research that has been done, is in many cases cardiac catheterization is used inappropriately and does not benefit care and has been overutilized and potentially could be driving healthcare spending up. That is the theme of many of the tech-

nologies that have been introduced in health care, this two-edged sword, that it helps in some cases and it doesn't. And I think that is the real issue as we try to figure out how telehealth can be beneficial.

In many cases, including Mr. Chard, telehealth is probably a very beneficial kind of therapy, but how do we make sure that it is not overused?

Mr. PALLONE. All right.

And then, Dr. Bashshur, just briefly, if you think telehealth can be used effectively to treat more patients at lower cost, you suggested that. Can you just give us an example, perhaps?

Mr. BASHSHUR. The example has several parts to it, if I may explain it. There are different elements of cost here, and our cost to the consumer is rarely considered by the payers because they are not responsible for it. That element of cost is always reduced because if they don't have to travel, they don't have to encumber the cost. There is also the convenience and the waiting times and sometimes time lost from work. So there are several aspects of cost that must be considered in their totality as a way to deal with the problem.

Mr. PALLONE. All right. Thanks a lot.

Thank you, Mr. Chairman.

Mr. PITTS. Chair thanks the gentleman.

I now recognize chair emeritus of the full committee, Mr. Barton, 5 minutes for questions.

Mr. BARTON. Thank you, Mr. Chairman. And I am sincere in saying I appreciate this hearing. I think this is really important, what this subcommittee is discussing today.

I have two general framed questions, and I will put them out on the table and anybody who wants to answer them. First question is concerning the privacy of the records that are generated by the telehealth or telemedicine. How secure are the medical records if you use this technology?

And the second is a Medicare, Medicaid billing issue. I am told there are some concerns that if the doctor is in one place and the patient is in another and the health insurance is in another place, that Medicare and Medicaid sometimes are unwilling to or don't know quite how to cost the charges that result from a telehealth or telemedicine visit.

So if anybody wants to take a crack at either of those two, the privacy issue or the billing issue, I am all ears.

Mr. BASHSHUR. If I may, I would deal with the privacy issue and leave my colleague to answer the other question.

Mr. BARTON. I will come to you after him.

No go ahead, sir, and then we will go to the young lady down there. Either one of you. You are both going to get to talk.

Mr. BASHSHUR. I yield to her.

Ms. JONES. Thank you.

It is an excellent question. I think privacy is of the utmost concern. Most certainly, our technology is HIPAA compliant and secure. All information contained within the encounter is secure and kept on a server. I won't pretend to be able to describe the server from a technology standpoint, but everything is HIPAA compliant and secure.

For the most part, you will find from a policy perspective that that is kind of the emerging understanding of what is required for a telehealth encounter to be considered secure. The emerging policy, including from the Federation of State Medical Boards that was just passed this past weekend, is that that should be in place within the context of any given telehealth encounter.

So it most certainly is within our platform. Many of the telehealth programs that are out there now support HIPAA compliance and security to protect any PHI information. So that is occurring. It is the emerging standard within policy. It is most certainly contained within the Telehealth Modernization Act that just came out this past December. So it is the emerging standard within any telehealth technologies that you see out there and critically important in ensuring patient safety and security.

Mr. BARTON. Doctor.

Mr. BASHSHUR. Yes, I agree. We have to be HIPAA compliant, and that really answered the question about security for the patient. If we violate, we will be in deep trouble, so we avoid trouble.

With regards to Medicare and Medicaid billing, there are some differences. Typically, as you know, there is the CPT code that we have to submit for billing purposes and these are issued by CMS. Their use in the country is still extremely limited. For example, during the entire year of 2013 the total expenditures for telemedicine services for Medicare patients has been only $12 million for the entire country.

Mr. BARTON. So it is basically not being used for Medicare?

Mr. BASHSHUR. Because of the restrictions that are placed on it, yes, absolutely.

Mr. BARTON. Well, if each of you will give some thought to that and put in writing some suggestions on how to correct that to the subcommittee, we would appreciate it.

I believe we would have a bipartisan agreement that we shouldn't let a billing problem prevent doctors and patients from using this technology. We ought to be able to come up. And I don't think it will take legislative action so much as it might just take a letter from members on both sides of the aisle of this committee and subcommittee to Medicare and Medicaid and CMS to give them some guidance on what they should do in terms of billing.

So with that, I yield back, Mr. Chairman. But again, thank you for the hearing.

Mr. PITTS. The chair thanks the gentleman.

We have just been called to vote. We are going to continue. The chair recognizes the ranking member emeritus, Mr. Dingell. Five minutes for questions.

Mr. DINGELL. Mr. Chairman, thank you for your courtesy and thank you for having this hearing.

I would like to welcome our distinguished panel, particularly Dr. Bashshur, who is a constituent of mine from the University of Michigan and is the Executive Director of the health—for eHealth at the University of Michigan Health System.

It is a pleasure to have the whole panel with us today, but especially you, Dr. Bashshur.

Now, I have a number of questions which I hope that you will answer "yes" or "no" in order to save time.

Doctor, is it correct that spending on chronic illness accounts for 75 percent of health expenditures in the U.S.? Yes or no.

Mr. BASHSHUR. Yes. In approximate——

Mr. DINGELL. Now, Doctor, given your expertise in the area, do you believe that investing telehealth—in telehealth technologies to improve chronic disease management will save money over the long run? Yes or no.

Mr. BASHSHUR. Yes.

Mr. DINGELL. Doctor, I want you to know that we would like to have you submit additional information as you might feel necessary later so that we have the benefit of your full judgments here.

Now, while the Affordable Care Act has done a great job in making health care more accessible to the American people, I think most people continue to believe that much more must be done to improve access to care for the people in this country with unmet medical needs.

Now, Dr. Bashshur, I know that you have done several studies about increasing access to health care.

Do you believe that the use of telemedicine can help improve access to care in medically underserved communities like the Upper Peninsula in Michigan? Yes or no.

Mr. BASHSHUR. Yes.

Mr. DINGELL. Now, Doctor, rural areas are not the only part of our country with citizens who have unmet medical needs, yet telemedicine in this country today is mostly faced—mostly focused on rural areas.

Doctor, is it correct that, generally speaking, CMS has limited physician reimbursement for telehealth to services provided in rural areas? Yes——

Mr. BASHSHUR. Yes.

Mr. DINGELL [continuing]. Or no?

Mr. BASHSHUR. Yes.

Mr. DINGELL. Do you believe that is a good limit?

Mr. BASHSHUR. No. I don't think so.

Mr. DINGELL. Now, how else has CMS restricted reimbursement for telemedicine in the United States today?

This does not require a yes or no. It requires a quick answer to be followed by a followup in additional remarks.

What do you have to say on this, Doctor?

Mr. BASHSHUR. CMS requires synchronous live video conferencing with a presenting provider on one end at the originating site and connected to a specialist at the remote site.

This happens to be the least efficient mode of telemedicine service. The so-called asynchronous mode is more efficient.

Mr. DINGELL. Now, Doctor, Alaska and Hawaii are exempt from CMS reimbursement restrictions.

Is the use of telehealth more prevalent in those States in comparison to the continental 48 States? Yes or no.

Mr. BASHSHUR. Yes.

Mr. DINGELL. Do you believe that telehealth technology used in Alaska and Hawaii are a model for the rest of the country? Yes or no.

Mr. BASHSHUR. Yes.

Mr. DINGELL. Doctor, I want to thank you. I want to express my respect and high regard for you and, also, to the other members of the panel.

I look forward to any additional remarks that you or any of the panel members might submit to any of the questions in order that we could have the fullest expression of your thoughts and views.

Thank you, gentleman and ladies, for being here this morning.

Thank you, Mr. Chairman.

Mr. PITTS. The chair thanks the gentleman.

I now recognize the vice chairman of the subcommittee, Dr. Burgess. Five minutes for questions.

Mr. BURGESS. I thank the chairman for the recognition.

Mr. Chairman, I just wanted to point out there is an online medical community called medscape.com, and Dr. Eric Topol, who is their editor-in-chief, actually had an article addressing this issue.

His conclusion to the article: "If you fast-forward over the next 5 years, we will be doing a lot of office visits in a completely different way, and whether they are telephone consults or video links with transmission of the data in real time or in advance, it is a different look, and we should be getting ready for the virtual physician visit with patients in the years ahead."

I would like to ask unanimous consent that we submit Dr. Topol's remarks for the record.

Mr. PITTS. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. BURGESS. And I think we have heard that same theme expressed several times this morning.

You heard my anxiety, Dr. Beeman, along the old CPT code that I found one day. I thought my life was changed, my income will double, and, yet, that was a code that was available, but not reimbursed, back in the HMO days.

What are you doing with your super-utilizer network—what are you doing to get around those issues?

Mr. BEEMAN. Doctor, I think one of the big challenges we have in this is we are doing tremendous demand destruction with the anticipation that providing better care and services is the ultimate benefit.

When Lancaster General Health decided to embark on population health management, we actually went through a 3-year process of restructuring our health care delivery system to take out $100 million worth of cost, and we continue to focus on that through Lean Six Sigma so we can afford to do the demand destruction.

The problem that we have been talking about in telehealth is: It is a tool. It is not the end. And so, when we talk about paying for telehealth, what I think we need to be talking about is putting us health care providers at risk to care for a population and let us deploy the tools that we need in order to manage that.

Mr. BURGESS. Let me interrupt you just in the interest of time.

And I don't disagree with you, but you recognize the real world is—there are going to be a lot of practices that will live in a fee-for-service world for the rest of my natural lifetime.

And the SGR reform that has been mentioned several times this morning, it tried to acknowledge that. Sure, there are going to be

different models of practice, bundled payment ACOs where just the situation you talk about may make sense.

But I got to tell you. I practiced OB/GYN. I practiced for years. My greatest fear was that next-to-the-last patient on Friday afternoon was going to have a blood pressure—a diastolic blood pressure of 88 where she had always been normal before.

And you know the drill. This is someone who simply could have an elevated blood pressure because their husband wasn't on time for the appointment, they couldn't find a parking place, or it could be the beginning of a very serious illness that within a very short period of time was going—she was going to be critically ill.

So I am sitting in the clinic at 4:15 on a Friday afternoon. I got no way of knowing—some other parameters you can check to be sure. But even if they are all normal, you still have no way of knowing.

How great would it be to have her with a blood pressure cuff at home and a smartphone and to be able realtime, "Send me your next 10 blood pressures and, if it is over X, let's get together right away."

The old days, what was at your disposal? Put her in the hospital for the weekend so that someone could monitor the blood pressure.

And if you didn't do that and she really was severely preeclamptic, the next visit was at 3 o'clock in the morning in the emergency room with a seizure, with organ damage. I mean, it was a big deal if you guessed wrong.

This will eliminate a lot of the guesswork out of that type of practice. And, you know, I would argue, too—someone brought up the issue of overuse.

I mean, if we reform our liability laws in this country, maybe we can get around some of those problems as well. But I would be interested in your thoughts on that.

Mr. BEEMAN. Doctor, I agree. I think right now we are deploying a lot of this technology in aspirational hope that it will pay for itself by better health care.

And some of it is deployed because we would rather keep the patient out of the hospital and healthy than we would seeing them one more time in the emergency department.

And, in some respects, with a medical assistant's patient who uses that as a primary care office rather than an office, it allows us to take the office to them rather than have them use the emergency department.

Mr. BURGESS. Let me just ask you this. And we are going to run out of time. But, in your opinion, are there conditions where the potential for misdiagnosis, the potential for harm, is of particular concern and it will be inappropriate to use telemedicine?

Mr. BEEMAN. Yes. I think the——

Mr. BURGESS. Right answer. Thank you.

Ms. Jones, I just wanted to follow up on Mr. Barton's questions on the issue of privacy. And I am glad you brought that up. I hope you will provide some thoughts to the committee in writing that he requested.

Clearly this needs to be a balanced conversation. I remember having this discussion in 2007 with a CEO of a big insurance company.

They were doing a lot of stuff with the—just financial data where they could perhaps predict outcomes in future medical issues.

And one of things he said to me was, "You have got to define privacy and stop changing your minds every 3 months." And I hope you will help us with that conversation because it is a critically important conversation to have.

Ms. JONES. Certainly. We are more than eager to be partners in this conversation.

I think one of the things that we have always uphold—upheld as an organization is that there are some principles that uphold the highest common denominator of care, some things that should be in place so that providers who are providing care via telehealth have the ability to use the very same discretion that they use in person while they are providing care electronically.

And the infrastructure that is required there are things like HIPAA compliance, documentation of care, continuity of care. There is some discussion around formulary and what kind of prescribing isn't appropriate, identity of the provider being affirmed, identity of the patient being affirmed.

So I think some of these kind of principles that create the infrastructure for safe and secure telehealth need to be discussed because, when you have those in place, then, again, you are in a position where you are creating a safe and secure environment and these physicians can decide—use the very same discretion that they use in a face-to-face encounter to say, "Yes. This is appropriate for care," "No. This is not appropriate for telehealth care," "Yes. I have this expertise," "No. I need to refer for in-person or refer to another expert."

And those are very important discussions to have and ones that we have on an ongoing basis.

Mr. BURGESS. Mr. Chairman, thank you very much for the time. I know a vote is close. So I will yield back.

Mr. PITTS. The chair thanks the gentleman.

Unfortunately, we have been called to the floor on the vote. I think we only have a couple of minutes to go to get there. And so we have lost our Members.

Members will have a lot of other questions we would like to submit to you. We will ask that you please respond promptly in writing.

This is not the end of the discussion. It is just the beginning. I look forward to working with my colleagues, with all of you, as we pursue this issue.

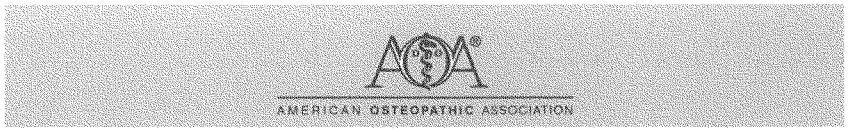
I remind Members that they have 10 business days to submit questions for the record, and they should submit those questions by the close of business on Thursday, May the 15th.

This is a very important issue. Thank you very much for your time, for coming, for your expertise. And we will continue to work with you.

Without objection, the subcommittee is adjourned.

[Whereupon, at 11:11 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]



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STATEMENT FOR THE RECORD

HOUSE ENERGY AND COMMERCE COMMITTEE, HEALTH SUBCOMMITTEE: "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients"

MAY 5, 2014

Chairman Pitts, Ranking Member Pallone, and Members of the Committee:

On behalf of the American Osteopathic Association (AOA) and the more than 104,000 osteopathic physicians and osteopathic medical students we represent, we appreciate this opportunity to present our views on telemedicine and the associated factors that must be taken into consideration when exploring how this tool can be integrated into our evolving healthcare system. The AOA supports the concept of telemedicine, and believes that technology should be used to increase access to care for patients, while not diminishing its quality or its patient-centeredness. As well, the AOA recognizes the need to provide a broad framework establishing recommendations to address telemedicine at the national level, while providing enough flexibility for states to incorporate their own policies that meet the health care needs of their citizens.

AOA TELEMEDICINE POLICY STATEMENT

With the rapid pace of advancement in technology, telemedicine is an evolving practice – both in the scope of practice that is covered, and in the overall meaning of the term "telemedicine." Telemedicine is a tool used not only to provide direct services to a patient via information technology, but also specialist and primary care consultations, the online storage and sharing of medical information, imaging services through digital transmissions and the interpretation of images, remote patient monitoring, and medical education.

The practice of medicine via electronic and technological means has been occurring for decades. As technology advances and the breadth of medical practice in this area expand, there is an increasing call to regulate patient care delivered through technological resources. Advocates for telemedicine argue that it provides improved access to medical care and services to patients in rural or distant areas. They also emphasize that it allows for easier access to care for immobile patients and those with limited mobility. Cost-effectiveness, through reduced travel times, is also noted as a cause for increased patient demand for health care services through telemedicine.

Despite its advantages, opponents raise concerns over the lack of regulation and oversight to control this practice. The primary issues involving telemedicine are: (1) licensure of out-of-state practitioners who use technology to treat patients in a state where they are not licensed to practice; (2) technological problems and barriers; (3) reimbursement issues regarding payment for services rendered; and (4) quality of care. Currently, thirty-nine states allow some type of reimbursement for

telemedicine services under Medicaid. Additionally, eighteen states grant expedited telemedicine licenses and forty states[1] have specific statutes addressing the practice of medicine over technologic networks.[2]

Access and Quality

Many see telemedicine as a solution to the access to care issues currently facing many in rural and underserved communities. In an effort to improve access to care in rural areas, CMS, in July 2011, instituted a new rule easing the burden of hospital credentialing for providers offering services via telemedicine.[3] This change allows rural critical access hospitals to obtain consultations from a subspecialty provider or facility without undertaking the administrative burden of credentialing each provider individually.

While mostly supportive, concerns about the quality of care being provided through telemedicine do exist. Care deemed to be below the acceptable quality standard can be addressed either via the disciplinary action of a state medical board or via civil legal action (medical malpractice claims). Liability rules vary state by state and concerns exist over the determination of venue when a provider is utilizing telemedicine across state lines. Additionally, standard of care must be established and may vary between face-to-face encounters and telemedicine encounters; although, many providers argue against this variation.

Liability Concerns

One issue that arises under the discussion of advancing online medicine is the question of jurisdiction for liability cases. In cases of medical malpractice, where a physician licensed to practice in two or more states practices medicine over state lines through electronic means, and an adverse event occurs.

Current state and federal statutes and case law provide a remedy to overcome this barrier. Patients are provided a pathway to legal recourse in the state that the accident occurred, if there is a reasonable expectation for that harm to have occurred there. So long as the patient can provide evidence confirming that location, ex: location of the IP address, and did not attempt to deceive the physician as to their location. Under this established system, any time a physician is choosing to perform telemedicine, they should have the expectation that they are choosing to be held liable under another state's laws if an adverse event occurs.

Licensure

Telemedicine is a broad area and is not regulated by one specific board or oversight body. There is no standard for telemedicine education and no certification in the provision of telemedicine. Therefore, the burden of oversight currently falls on the state medical boards. Each board defines care that meets an acceptable quality somewhat differently. State licensure requirements also diverge with significant differences in testing, postgraduate education and continuing medical education requirements.

Additionally, scopes of practice vary by state with no overall standard in regards to prescription authority or practice rights. Finally, uniformity fails to exist in what constitutes a visit (establishment of the "physician-patient relationship"), with some states requiring a face-to-face visit before a

telemedicine relationship can be established. Due to these differences, some advocates have promoted the concept of national licensure. They believe that a national license for the practice of medicine would eliminate barriers that prevent widespread use of telemedicine.

The AOA supports state-based licensure and discipline oversight, believing that states should have the right to directly regulate and provide oversight for services being provided to their citizens. Concerns have been expressed about who would assume responsibility for disciplinary action against providers if a national medical license was initiated. Currently, protection of the residents of the state is a top function and core value of the state licensing boards.

The American Telemedicine Association (ATA) argues that state-by-state licensing, as it currently exists, restricts consumer choice and the free flow of services, protecting some markets from healthy economic competition.4 New Mexico, a state where 91% of the counties qualify as medically underserved, views telemedicine as a lifesaving mechanism to provide primary patient care and specialty consultation services. Senator Tom Udall (D-NM) believes national medical licensure for telemedicine will improve access to health care. Senator Udall has announced plans to allow physicians to provide care using telemedicine and in some instances, travel more freely across state lines to more remote rural areas by establishing a national licensure system.

Conclusion

The AOA recognizes the benefits of online technology to the medical field, and its ability to assist many patients who may not have access to medical care.

The AOA further recognizes the need to provide a broad framework that establishes recommendations to address telemedicine at the national level, while providing enough flexibility to allow each state to incorporate policies that meet the health care needs of their citizens.

The AOA believes that a physician is practicing medicine, in the absence of physical interaction, when medical services are being provided through simultaneous two-way communication, recognizing that some services may require appropriate and corresponding delays in said communication.

The AOA believes that the utilization of technology in patient care should be used to increase access to care, and must not be used in a way that would diminish patient centered comprehensive personal medical care or the quality of care being provided to the patient. To this end, the AOA supports the concept of telemedicine and advocates that public and private payers adopt payment systems that are inclusive of telemedicine.

The AOA believes that the standard of care provided through the use of technology should be equivalent to that of care provided when the physician and patient are within close physical proximity.

The AOA believes that the technological network being used to deliver patient care must have protocols in place that ensure the stability and security of that network to comply with applicable state and federal laws regarding patient privacy issues.

The AOA believes that the scope of care being delivered by the physician and other health care providers through telemedicine should not exceed education, training and applicable state and federal law.

The AOA believes that state-based licensure and the ability of states to govern activities within their borders is paramount and would oppose any national licensure or efforts to pre-empt state statutes.

The AOA believes that malpractice claims that arise from care provided through technological means, when the physician and patient are located in separate jurisdictions, should be adjudicated under the process currently utilized by the judicial system; whereby, the plaintiff has the ability to determine the venue where the case is filed, within the constraints of that system. The AOA believes physicians must provide complete transparency to their patients regarding their location, jurisdiction of licensure and any limitations of the technology used to deliver care.

The AOA believes that as physicians provide care in a variety of new ways, including telemedicine, advanced technology can be used to improve patient care. The AOA further believes that online medicine policies directly tie into the Patient-Centered Medical Home (PCMH) model for care, and recognizes that we must simultaneously implement advancements in telemedicine in order to be successful in that new model.

The AOA thanks you for the opportunity to share our views on this important issue. The Committee should be commended for undertaking a discussion of these technologies, as well as the positive and negative implications of their adoption. We believe discussions such as this are the vital steps to bringing this concept to fruition, and we look forward to working with this Committee to ensure that appropriate laws applying to this important issue are in place.

Sincerely,

Norman Vinn, DO
President

1 50 State Medicaid Statute Survey, Center for Telehealth & e-Health Law, February 2011, available at http://www.ctel.org/expertise/reimbursement/medicaid-reimbursement/

2 Humayun J. Chaudhry, Setting Expectations for Professional Behavior: MOL and Ongoing Clinical Competence, Federation of State Medical Boards, January 15, 2011, available at http://www.osteopathic.org/inside-aoa/events/Documents/ome2011-chaudhry-setting.pdf

4 Federal Register Volume 76, Number 87, May 5, 2011, available at http://www.gpo.gov/fdsys/pkg/FR-2011-05-05/html/2011-10875.htm

4 American Telemedicine Association, Medical Licensure and Practice Requirements, June 2011

House Energy and Commerce Committee
Health Subcommittee
Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients
May 1, 2014
Written Statement submitted by Carrie Kovarik, MD, FAAD
Chair, Telemedicine Task Force, American Academy of Dermatology Association

Chairman Pitts and Ranking Member Pallone, as Chair of the Telemedicine Task Force (Task Force) of the American Academy of Dermatology Association (Academy), which represents more than 13,000 dermatologists nationwide, I commend you for holding a hearing on how new technologies and advances in telemedicine can further efficiency, quality, and access to health care. We applaud you for raising awareness of this emerging care delivery model and look forward to working with you to ensure that our patients can benefit from advances in telemedicine, while also receiving high-quality, efficient care.

Reflected in its Position Statement on Telemedicine, the Academy supports telemedicine as a means of improving access to the expertise of board certified dermatologists, as well as maintaining patient safety. Additionally, we support telemedicine as a means to encourage professionalism, via patient care coordination and communication between other specialties and dermatology. In order to optimize safety and efficacy, we expect all telemedicine practitioners to have a maximal understanding of the culture, and other relevant characteristics, of the site from which the telemedicine encounter originates.

In my role as an associate professor at the University of Pennsylvania, I have seen first-hand how patients in our own community can gain access to specialty care through telemedicine. The Academy sponsors AccessDerm, a volunteer teledermatology platform, with which I and many colleagues volunteer. AccessDerm allows Board-certified dermatologists to provide care to underserved populations in the United States. By participating in the program, we consult remotely on dermatology cases using a web-based platform and mobile devices. The AccessDerm program gives trained primary care providers (PCPs) who work in participating clinics efficient access to dermatologists' expertise via a HIPAA-compliant mobile application that allows for secure transmission of photos and other relevant clinical information. The Academy volunteer teledermatology efforts have provided over 1,000 consultations to underserved patients, with notable diagnoses such as melanoma and other malignant conditions. AccessDerm is currently utilized in nearly 20 states across the country with the goal to set-up connections in every state.

The use of teledermatology fosters a robust collaboration between the dermatologist and the primary care provider. This type of collaboration ultimately benefits the patient, as it results in increased access to dermatologic care, without necessarily requiring an in-person visit to the specialist. The benefits of collaborative care via teledermatology are on full display in the AccessDerm volunteer program. In 75 percent of AccessDerm cases, where the PCP would have sent the patient for an in-person dermatology consultation (absent teledermatology), the consulting dermatologist did not consider the in-person

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consultation necessary. By providing our clinical advice via teledermatology, we enable the PCPs to apply these specialty recommendations at the patient's medical home, leading to more efficient and cost-effective care. On the other hand, in AccessDerm cases where the PCP would not have sent the patient for an in-person consultation, the dermatologists, based on the information received, recommended an in-person consultation in 12 percent of cases. Whereas teledermatology allows PCPs, acting on the advice of dermatologists, to provide needed dermatologic care directly to their patients, it can also help to ensure that the patients who truly need to see a specialist have the opportunity to do so if their medical care requires it.

Teledermatology has myriad benefits, but it is not the same as, nor a substitute for, an in-person physical examination by a board certified dermatologist. Teledermatology services are best seen as a valuable means of improving patient care in underserved patients with limited access to specialty care, as a triage tool to determine which cases need to be seen in person most urgently, or as a platform to deliver care to those who are unable to receive the benefits of face-to-face dermatology visits. Teledermatology is limited in its utility because some types of information relevant to diagnosis and treatment of patients is poorly transmitted through a non-face-to-face interaction. These limitations apply both to "store and forward" teledermatology, as well "live interactive" teledermatology. Some of these elements that may be difficult to convey through teledermatology include: nonverbal communication with the patient, such as prolonged discussion which may reveal the patient's state of mind, anxieties, and other relevant impressions; the additional diagnostic clarity provided by sensory information unavailable in video, like touch, and even smell; and finally, the color and lighting of a skin eruption, which may differ in video, as versus face-to-face interaction. A pertinent example of the limitations of teledermatology is the not uncommon situation when a patient's chief complaint is secondary in importance to additional findings of which the patient was unaware, but that are revealed during the course of an examination (e.g., a patient presenting with "dandruff" diagnosed as seborrheic dermatitis is also diagnosed with a previously unseen melanoma on the back, and the latter is a life-threatening cancer requiring immediate treatment). With teledermatology, the routine use of limited clinical examination would reduce the likelihood of detection of such incidental, but critical diagnoses.

As we embrace new technology to deliver patient care, it is crucial to maintain the same criteria we require for all face-to-face visits. When providers are not in the same room, patients are less able to judge the quality and training of their providers. There is the potential for telemedicine to be abused or misused if provided by an untrained healthcare provider or by a health care provider practicing outside of their scope. Clear rules are therefore needed to ensure that providers of teledermatology are appropriately trained, so that patients receive the best care. This proper training includes board eligibility or certification in dermatology by the person who is providing the care and full disclosure of these credentials to the patient. While we applaud efforts to formalize and regulate telemedicine to ensure patient safety, we must ensure that the provision of telemedicine is held to the same standards as a face-to-face visit. Telemedicine will be appropriate when the training, qualification, and supervision of the providers who are delivering telemedicine care is of a high level, and equivalent in all respects to that of providers delivering face-to-face care.

From a liability standpoint, special considerations may be needed to make teledermatology feasible and successful for patients. Teledermatology may be perceived as having incremental liability risks that require protections for physicians and others involved with the delivery of teledermatology. Since teledermatology is designed to provide access to care in resource-poor environments at some distance from dermatologists' offices, dermatologists who provide teledermatology services will generally have less control over the patient-physician interaction

than they would in a face-to-face setting. As such, dermatologists participating in teledermatology will require modified legal protections, especially when there are circumstances affecting the teledermatology process that are beyond the reach of the dermatologist.

We look forward to future discussions with you on how to best regulate telemedicine to ensure that patients receive the highest quality care in a timely and cost-efficient manner. Teledermatology offers patients who cannot currently access dermatologic care the prospect of timely, high quality care by an appropriately trained dermatologist. Yet, teledermatology has limitations that prevent it from being an appropriate routine replacement for face-to-face dermatology visits. All patients should therefore have the option to receive face-to-face dermatologic care.

We appreciate your continued leadership on this issue and look forward to working with you to ensure that patients can benefit from high-quality, efficient telemedicine. The Academy would like to serve as a resource for you and your subcommittee, as you continue to address these important issues. If you have any questions or if we can provide any additional information, please contact Katie Jones, the Academy's Assistant Director of Political and Congressional Affairs, at kjones@aad.org or (202) 609-6333.

STATEMENT

of the

American Medical Association

to the

House Committee on Energy and Commerce
Subcommittee on Health
United States House of Representatives

RE: Telemedicine

May 1, 2014

Division of Legislative Counsel
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STATEMENT

of the

American Medical Association

to the

House Committee on Energy and Commerce
Subcommittee on Health

RE: Telemedicine

May 1, 2014

The American Medical Association (AMA) appreciates the opportunity to provide our views on telemedicine to the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Health. The interest in telemedicine (also often referred to as "connected health") among state and federal regulators, lawmakers, physicians, allied health professionals, and telecommunication and technology companies has grown rapidly over a relatively short period of time. Current telecommunication technologies have been touted as: (1) ameliorating provider shortages; (2) increasing access to medical care while improving affordability for geographically remote and underserved populations; and, (3) reducing health care costs over time. It is widely expected that the broad-range of new technologies that support or enable medical practice will only continue to grow. There is increasing support among policymakers and early adopter physicians to modify or alter certain mechanisms that safeguard patient safety because they believe this will facilitate greater utilization of telecommunication technologies in healthcare. The AMA is in the process of conducting a comprehensive review of the foregoing considerations and the challenges to ensure that such telecommunication technologies are implemented in a manner that protects patient safety and promotes improved patient health outcomes. The diversity of telecommunication technologies, clinical practice settings, and medical specialties, along with the rapid rate of innovation, are factors that should be carefully weighed by policy-makers.

In brief, there are broad considerations that the AMA urges policymakers to consider.

Patient safety (consumer protection)

The relationship of trust between the patient and physician has long been understood as foundational to ethical practice in medicine. AMA policy stresses that such relationships must be predicated on: open and honest communication between the physician and the patient, including disclosure of all information necessary for the patient to be an informed participant in his or her care; commitment of the physician to be an advocate for the patient

and for what is best for the patient, without regard to the physician's personal interests; provision by the physician of that care which is necessary and appropriate for the condition of the patient and neither more nor less; and avoidance of any conflict of interest or inappropriate relationships outside the therapeutic relationship.

The AMA supports state-based medical licensure because it protects the interests of patients and the ability of states to enforce state medical practice laws. Physicians must be licensed in the state where the patient receives services and the AMA opposes federal legislation that would preempt or waive licensure and medical practice laws for telemedicine encounters. State licensure is the mechanism by which medical practice laws are enforced, including minor consent laws and reproductive and end of life medical practice laws, for example. Without state-based licensure the state is unable to hold out-of-state providers accountable for the medical care they provide to patients located in the state. Furthermore, patients and other health care providers from other states who become involved in litigation would have significant burdens resolving conflicts of law as it would not be clear which applicable state laws of medical practice, standards of care, or medical liability apply. Currently, state medical boards are able to regulate physicians delivering telemedicine services in their state in much the same way state regulators provide oversight for a broad array of other professionals delivering services in their state—treating physician licensure differently would be a marked departure that is not justified when a broad array of providers already offer telemedicine services and are able to comply with state licensure requirements.

As an alternative to state-based licensure, national licensure would be costly, complicated, and time-consuming. We need look no further than programs set-up on a national scale in the recent past requiring physician and provider enrollment in Medicare. It could be years before such an infrastructure is designed and implemented and likely would be subject to legal challenges.

Instead, solutions that focus on modernizing current state licensure processes should be a priority. For example, at the same time that the AMA supports state-based licensure, AMA policy calls for modernization of the state licensure process since the current process in some states can be costly, slow, and paperwork-intensive, whether a physician wants a license in one state or ten. The AMA has urged the Federation of State Medical Boards (FSMB) and other major telemedicine stakeholder proponents to support funding to deploy new technologies that streamline, automate, and simplify the licensure processes. However, modernization of the infrastructure and processing of licensure applications is only one step to paving the way for telemedicine. The FSMB is already developing a model compact for interstate licensure, which is set-up to streamline the regulatory process and expand access to care without compromising patient protection under the current licensure scheme. The AMA continues to provide input on this effort and recognizes that the end goal is engage state medical boards and state medical associations in the development of this compact and to apply lessons learned from the nurse compact so that widespread adoption becomes a reality.

Promoting patient centered care and care coordination

The AMA urges policymakers to promote telemedicine that will support care delivery that is patient centered, promotes care coordination, and facilitates team-based communication. We urge policymakers to support telemedicine that promotes interoperability of systems,

products, and platforms—or minimally portability of data. Telemedicine should be consistent with and serve as infrastructure for new value-based accountable care delivery models, and without data portability, new telemedicine models—particularly outpatient care—may further fragment care and create additional silos instead of building medical neighborhoods of collaboration. Promoting patient care coordination through medical home and accountable care models will become achievable where data portability and interoperability are promoted in the context of telemedicine. The foregoing is more likely where telemedicine technologies are used to extend the capacity and reach of physicians and health care practices and systems in the community where a patient resides. Alternatively, such care coordination and new delivery models will become more difficult to implement if new telemedicine platforms and options create barriers to engagement with a patient's treating physicians, medical home team, and neighborhood.

As part of the AMA's review of telemedicine technologies, we have had the opportunity to consider a number of innovative platforms—this review remains ongoing. The companies offering telemedicine platforms and technologies have approached the need for care coordination with the medical home and the medical team, and the need to construct technologies and policies that support patient centered care between traditional and new locations of care and members of the patient's medical team with differing levels of importance. Currently, some new telecommunication vendors that use free-standing platforms to triage urgent care, for example, have relatively weak methods to support care coordination with a patient's medical home where an established physician-patient relationship exists outside of the telemedicine platform offered. On the other hand, some vendors have developed models that emphasize partnerships with existing community providers to scale or extend the patient's medical home's reach utilizing telemedicine models. One vendor, for example, offers a variety of data sharing interfaces via the Health Insurance Portability and Accountability Act-compliant standards to allow the vendor to support information sharing with the patient's medical home. Again, the AMA urges policymakers to promote telemedicine that will support care delivery that is patient centered, promotes care coordination, and facilitates team-based communication.

Evidence base and clinical standards of care

Policymakers should also increase support for further development of research and evidence regarding the impact telemedicine has on quality and costs. There is a developing body of research on an array of telemedicine technologies and services, but the evidence base in some areas does not exist or is limited. As the technologies proliferate and the medical services that are covered expand, there will be increasing pressure to ensure that there is a clinical evidence base to support new applications, and that uses are safe and efficacious. Research has moved from demonstrating the technology works and is functional to evaluating the comparative effectiveness of services offered through telecommunication modalities as compared to in-person services.

Telemedicine is not a separate medical specialty. Standards of care for telemedicine services in some areas are well-established, but in many other areas remains a work in progress where a number of pace setting specialties have been very involved in developing relevant clinical practice guidelines. National medical specialty societies continue to develop clinical guidelines or position statements relating to telemedicine—these include the American College of Radiology, American Academy of Dermatology, American Psychiatric

Association, and Society of American Gastrointestinal and Endoscopic Surgeons, for example. The AMA is engaging both national specialty and state medical societies concerning practice guidelines as well as policies broadly governing telemedicine and expects more activity in this area.

While there is growing evidence that certain uses of telemedicine can improve care coordination and adherence, there is equally concerning indications that certain telemedicine prescribing practices in urgent care settings and where care is not coordinated with a medical home or compliant with practice guidelines may lead to public health threats. Specifically, the prescribing of antibiotics without appropriate diagnostic testing may further exacerbate the serious and growing problem of antibiotic resistance—a persistent and deepening public health threat.[1]

We appreciate the Subcommittee's critical role in reviewing telemedicine policy issues and look forward to working with the Health Subcommittee and Congress.

[1] The Centers for Disease Control and Public Health (CDC) has reported over 2 million antibiotic resistant infections in the United States each year and at least 23,000 deaths. The most important factor contributing to antibiotic resistance is antibiotic use. The most common inappropriate use is for acute respiratory tract infections. Over half of all outpatient antibiotic uses are unnecessary. Shapiro, D. J., et al. (2013). J Antimicrob Chemother 69(1): 234-240; Antibiotic Resistance Threats in the United States, CDC, September 16, 2013. In addition, a JAMA study on eVisits concluded that 99 percent presenting through eVisit received antibiotic compared to 49 percent presenting in-person who received antibiotic. Mehrotra, A., et al. (2013). JAMA Intern Med 173(1): 72-74.

AMERICAN ACADEMY OF FAMILY PHYSICIANS
STRONG MEDICINE FOR AMERICA

AAFP Policies Related to Telemedicine

1. Telemedicine

Telemedicine is the use of medical information that is exchanged from one site to another through electronic communications. It includes varying types of processes and services intended to enrich the delivery of medical care and improve the health status of patients. Some of these processes and services include:

- Subspecialists' consultations and may involve the patient "seeing" the subspecialist during a live, remote consult. It may also include the transmission of diagnostic images or video that the specialist reviews later.

- Using electronic communications that collect and send information to foster remote patient monitoring, such as vital signs or blood glucose levels. Monitoring of this nature assists homebound patients or care coordination between providers.

"Closely associated with Telemedicine is the term 'telehealth' which is often used to encompass a broader definition of remote healthcare that does not always involve clinical services. Videoconferencing, transmission of still images, e-health including patient portals, nurse call centers, and remotely tracking vitals are all considered part of telemedicine or telehealth." (incorporating the American Telemedicine Association's definition of Telehealth).[1]

(*available at* http://www.aafp.org/about/policies/all/telemedicine.html)

[1] *See* American Telemedicine Association, "For the Media," *available at* http://www.americantelemed.org/news/for-the-media#.U2D6fPldXTo

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2. Telemedicine, Licensure and Payment

The delivery of healthcare services via telemedicine should be consistent with the principles of ethical medical practice. Regulation should not unduly restrict accessibility of telemedicine services, but appropriate licensure should be assured to protect the patient and the referring physician. The AAFP opposes the creation of unreasonable barriers to the practice of telemedicine across borders by state licensing boards; however, full legal accountability for the ordering and interpreting of telemedicine services must be maintained. Family physicians should have full discretion in selecting the most appropriate consultants for their patients.

By creating ready access to information, telemedicine can provide physicians with current medical information that may not otherwise by available in a given setting. The AAFP believes that payment should be made for physician services that are reasonable and necessary, safe and effective, medically appropriate, and provided in accordance with accepted standards of medical practice. The technology used to deliver the service should not be the primary consideration; the critical test is whether the service is medically reasonable and necessary. Care provided via telemedicine should be paid as other physician services. A record of telemedicine interactions must be created that becomes part of the patient's medical record.

(*available at* http://www.aafp.org/about/policies/all/telemedicine-licensure.html)

3. Licensure

The AAFP supports the concept of licensure and relicensure at the state level, as presently provided, and opposes the concept of such licensure on a federal level. The AAFP encourages states to engage in reciprocity compacts for physician licensing, especially to permit the use of telemedicine.

(*available* at http://www.aafp.org/about/policies/all/licensure.html)

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Fast-Forward 5 Years: Topol on the Future of Patient Care

Eric J. Topol, MD | April 11, 2014

Hi. This is Eric Topol, Editor-in-Chief of Medscape. Today I want to talk about about office visits of the future.

The idea of "virtual" office visits replacing physically present office visits has been moving at a pace that is quite astounding. The February 2014 issue of *Health Affairs* was dedicated to this idea of telemedicine, telehealth, and the use of mobile devices in medicine. An article by Robert Pearl[1] from Kaiser Permanente included an interesting graph about the growth of virtual visits -- and we are not even talking about video, but email and phone visits as compared with physical office visits. The graph showed how the virtual visit has taken off during the past 5 years, and that is even without technology.

Now we have doctors on demand. We have Ringadoc and all these other services, in addition to being able to go to the "clinic" at your corner drug store for medical advice, whether it is CVS, Walgreens, or Walmart.

Cisco surveyed several thousand Americans[2] who were representative of the country, and 74% did not want to physically go for an office visit. They preferred a virtual visit. They do not want to wait an hour for a 7-minute face-to-face visit; they would rather have this visit in the comfort of wherever they are, at home or on-the-go, and have this visit via secure video or another type of communication.

What is also interesting is that we can use tools that we did not have before: smartphones to do an ear exam, an eye exam; to transmit all of the metrics, like blood pressure, heart rhythm, respiratory rate, oxygen saturation -- right in the midst of the virtual visit.

If you fast-forward over the next 5 years, we will be doing a lot of office visits in a completely different way, and whether they are telephone consults or video links with transmission of the data in real time or in advance, it is a whole different look, so we should be getting ready for the virtual physician visit with patients in the years ahead. Thanks for your attention.

References

1. Pearl R. Kaiser Permanente Northern California: current experiences with internet, mobile, and video technologies. Health Aff. 2014;33:251-257.

2. Cisco study reveals 74 percent of consumers open to virtual doctor visit. The Network: Cisco's Technology News Site. March 4, 2013. http://newsroom.cisco.com/press-release-content?articleId=1148539 Accessed March 13, 2014.

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May 22, 2014

Dr. Rashid Bashshur
Senior Advisor for eHealth
University of Michigan Health System
300 North Ingalls, SPC 5402
Ann Arbor, MI 48109

Dear Dr. Bashshur:

Thank you for appearing before the Subcommittee on Health on Thursday, May 1, 2014, to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Thursday, June 5, 2014. Your responses should be mailed to Sydne Harwick, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to **Sydne.Harwick@mail.house.gov**.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Frank Pallone, Jr., Ranking Member, Subcommittee on Health

Attachments

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June 3, 2014

The Honorable Joseph P. Pitts, Chairman
Subcommittee on Health
Committee on Energy and Commerce
House of Representatives
Congress of the United States

Dear Congressman Pitts,

It was an honor and privilege for me to appear before your Subcommittee on Health on Thursday, May 1, 2014 to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

I am now responding to the questions that you listed in your letter of May 22, 2014. The responses are organized on the basis of the names of the Honorable Members of Congress who posed them. The questions are formatted in bold, followed by my responses. I am using both e-mail and regular US mail.

I would be more than happy to provide any additional information or clarification that you or members of your Committee may request.

Respectfully,

Rashid Bashshur, PhD
Senior Advisor for eHealth
University of Michigan Health System

Responses to questions by the Honorable Joseph R. Pitts

1. **What role can telemedicine play to facilitate new payment models?**

Telemedicine can play a significant role in in developing a new and more efficient payment system that discourages inappropriate use of medical services while also encouraging appropriate use. This is what a good system of care delivery should do.

In order to facilitate new payment models, telemedicine must be linked with the necessary structural and financial reforms, such as pay-for-performance or pay-for-value rather than volume, Accountable Care Organizations, the medical home and patient-centered care. Telemedicine provides the tools to enhance the entire clinical care process, from initial triage of patients to appropriate sources of care, to care coordination, to clinical work flow efficiency, and to avoidance of unnecessary duplication of services. New payments models must provide incentives for the providers of care (including hospitals, clinics and physicians) to: (1) prevent illness through patient education, engagement, and the adoption of a healthy life style; (2) deliver early and timely interventions at the point of need; and (3) avoid unnecessary duplication of diagnostic tests and procedures and other forms of waste. New payment models can be effectively linked with the diffusion of telemedicine. That way, allowing providers to use telemedicine under new payment models would create savings and add value.

2. **What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?**

The optimal payment models for encouraging further development and deployment of telemedicine can be described in various ways but all incorporating some form of global payment system instead of fee-for-service. Examples include the Medicare Advantage, capitated systems, employer sponsored capitated health plans in the private sector, or direct service delivery systems such as the VA, and the Indian Health Service.

Currently, 21 states and District of Columbia have enacted parity laws that require insurers to reimburse for telemedicine services at a level comparable to in-person care, but under similar restrictions as those of CMS. From a budgeting perspective, the strongest case for telemedicine coverage can be made in care coordination models. More specifically, because of budgeting concerns regarding expanded coverage under fee-for-service reimbursement, it may be best to consider narrow or sequential expansions based on priority applications and providers. These would include, for example, chronic disease management, stroke diagnosis and treatment, intensive care supervision, critical access hospitals, or underserved segments of the population in urban areas. Savings would accrue from reduction in the use of more expensive services, including emergency department and associated ambulance transport as well as keeping patients in their local hospitals.

3. How has the advancement of telemedicine in recent years benefited the discovery, development or delivery of health care?

As a modality of health care delivery, when optimally implemented, telemedicine will render appropriate care at the most appropriate time and location. Phenomenal advancements in telemedicine technology, including sensors, non-invasive devices and electronic tools now place medical care at the point of need and also provide new diagnostic capabilities, self-help tools, and health monitoring.

Telemedicine systems constitute innovative systems of care that rely on information and communication technology to enable, facilitate and enhance (1) doctor-patient interaction regardless of time or distance barriers; (2) the acquisition, exchange, processing and storage of health information of various types and complexities for safe and effective clinical decision making on the part of providers, as well as shared decision making on the part of patients regardless of location; (3) the efficiency and effectiveness of health systems through (a) onsite triage whereby patients are served in their local communities by their usual providers with advice and supervision by remote specialists, and transferred when necessary; and (b) avoidance of unnecessary clinic and emergency room visits and hospitalization; (4) the effectiveness of continuing medical education through the provision of prompt and patient-specific evidence based

medical knowledge; (5) while it obviates the need for travel and other inconveniences for both patients and itinerant providers.

Telemedicine interventions have been demonstrated as effective and efficient solutions in chronic disease management and timely access to specialists. Patients and providers using these systems are typically highly satisfied with quality and convenience.

4. As the capacity of telemedicine continues to grow, what regulatory bottlenecks are most like to get in the way of its further development?

Currently, there are two notable regulatory bottlenecks hampering the orderly diffusion of telemedicine in this country: (1) Reimbursement policies by the Centers for Medicare and Medicaid Services (CMS) requiring online (live, also referred to as synchronous) videoconferencing between an "originating site" where the patient is located together with a presenter (who can be a physician, a nurse, a therapist, etc) and a "remote site" where the consultant is located. The originating site must be in a medically underserved area. Reimbursement is denied for asynchronous telemedicine (also referred to as store-and-forward), whereby a complete medical history together with all the appropriate diagnostic imaging and laboratory tests are sent to the consultant for a remote first or second opinion for diagnosis and treatment recommendations, typically completed within 24 hours. The consultant does not have to devote more time for this service than necessary, as these remote consultations can be fitted into his/her routine workflow. Synchronous telemedicine is inefficient and unnecessary from a quality standpoint for most medical service with the exception of psychiatry, intensive care, stroke and some emergency situations. Dermatology is a prime example of a clinical service that relies heavily on imaging (or photography) for diagnosis. Yet, reimbursement is denied for asynchronous teledermatology. Currently, only Alaska and Hawaii are exempt from this provision. (2) Medical licensure is under the jurisdiction of the states where patients are located, not where physicians practice. Patients desiring to receive care, or second opinion, from a medical specialist in another state must travel to the location of the specialist. Because of the state-based licensing, patients may be

denied potentially timely critical diagnosis and life-saving advice from a specialist located in other states. Ironically, Medicare patients have the same health plan in all states, and the academic and professional requirements for licensing are fairly uniform across the United States.

5. Can telemedicine raise the quality of service provided to the patients? If so, how?

Quality of service is largely a function of qualifications, experience and competence of providers: physicians, nurses and therapists as well as the resource capabilities in medical centers. This is tantamount to saying that good doctors with good resources provide good care. At the same time, medical expertise keeps narrowing its focus to specific disease entities (e.g. cancer, diabetes, mental illness, etc), organs and systems (e.g. ophthalmology, dermatology, etc.), gender (e.g. obstetrics and gynecology), and age group (pediatrics, gerontology). There is also a growing trend of sub-specialization combining one or more of these foci (e.g. child and adolescent psychiatry, pediatric nephrology, pediatric cardiology, etc) as well as within disease entities, (e.g. adrenal cancer, pancreatic cancer, etc). As medical science and technology advance so will the tendency toward greater specialization because of the discrepancy between the skills of the primary care physician and the specialist in terms of who might best treat specific patients with specific problems. Specialists and sub-specialists tend to locate their practices in tertiary care centers where they can rely on the requisite technology available in these centers while also being able to draw an adequate patient population to support their practice. Telemedicine can bridge distance and time barriers between patients and expert providers regardless of location. At the same time, remote providers in isolated, rural, as well as urban areas can have ready access to colleagues for consultations and referrals when necessary. In some instances, ready access to expert medical advice can make the difference between life and death, such as the timely diagnosis of ischemic stroke and the timely administration of thrombolytic treatment under remote medical supervision, as well as the timely transfer of patients requiring surgical interventions.

6. Can telemedicine lead to more patients receiving care without costly, unnecessary and time-consuming trips to their doctors?

This is one of the unique attributes of telemedicine. When appropriate, patients are served where they live, work, study or even travel via inexpensive technologies that are now truly ubiquitous by virtue of mobile phone technology.

Telemedicine can also serve people who might not otherwise receive appropriate and timely care, such as patients meeting Medicare's definition of being "homebound" or too depressed to travel to a mental health professional.

7. Can expanded use of telemedicine help lower costs for Medicare and the health care system? If so, how?

The use of telemedicine in chronic disease management (also referred to as telemonitoring, telehome care and home telecare) has been demonstrated to reduce hospitalizations and emergency department visits among chronically ill patients. Such evidence has been published in numerous scientific studies, albeit with minor exceptions. That is, a few studies reported improvements in longevity but no reductions in hospitalization or emergency department visits. However, findings from these studies may not be generalized because they used very sick patients with numerous health problems (comorbidities) and other methodological limitations.

Chronic diseases account for nearly three-quarters of all health care expenditures in the United States. Indeed, "the preponderance of the evidence produced by telemonitoring studies points to significant trends in reducing hospitalization and emergency department visits, preventing and/or limiting illness severity and episodes resulting in improved health outcomes." (*Bashshur, Shannon, and Smith, 2014*).[1]

Telemedicine has the potential for transforming the current healthcare system by creating seamless and ubiquitous care with continuous care management in integrated

[1] Bashshur, R, Shannon, G, Smith, B, et al "The Empirical Foundations of Telemedicine Interventions for Chronic Disease Management," *Telemedicine and eHealth*, in press.

systems with empowered and informed patients (and their caregivers) as partners at each stage care.

8. Medicare is a federally paid program. Can we leverage this nationwide program to use telemedicine to treat more patients at lower costs. If so, how?

As a federally paid program, we have the option of piloting various modalities of care delivery and financing to improve access to care (i.e. treat more patients) at lower cost. I think we need to be open to experimentation in searching for the optimal contexts for leveraging the Medicare program, such as Medicare Advantage, two-sided risk arrangements, and other care coordinated models. To be sure, a delicate balance must be achieved between serving the necessary needs of the population and discouraging inappropriate use of service, when the service is unnecessary, duplicative or wasteful.

As the nation's largest single payer, Medicare typically serves as a trend setter for other payers. Because of the size of its beneficiary population, Medicare has to potential to achieve economies of scale within active telemedicine networks. Medicare can foster virtual medical homes focused on chronic conditions. Telemedicine technology can be used to provide ongoing services by centers of excellence within regions of the country, and to have those centers serve as platforms for research.

9. How do you believe disadvantaged patients, with need for specialty care, in rural and urban areas, benefit from telemedicine?

Patients living in medically under-served areas can have ready access to expert medical consultations via telemedicine at low cost when faced with serious illnesses and life threatening conditions regardless of where they live, work, attend school, or even travel. This is because the technology obviates the need for a personal visit with the specialist unless such a visit is medically indicated. In surgical cases, for example, such visits are not necessary for pre-operation preparation and in the majority of post-operations. However, under current law, only patients living in medically underserved rural areas are covered under Medicare, Medicaid and some private insurers. We will

need to create parity regardless of residential location, and how telemedicine services are recognized as legitimate components of health care delivery.

10. **Do you believe telemedicine has the potential to reduce overall health care costs for Medicare and other payers? Please explain.**

If implemented with explicit controls and in the proper context, telemedicine has the potential to reduce costs for Medicare and other payers. Both organizational context (i.e., type of health system) and payment system (specifically the payment and incentive system) have to be taken into account, as both are critical to cost containment. Indeed, the fee-for-service payment system is not conducive to cost containment in any modality of care delivery, whether in-person or virtual via information technology, or organizational setting. I believe optimal results from telemedicine can be achieved in a system of care, within a network, or in an organized provider setting, such as a medical center linked with satellite clinics or private practices, a self-insured group, business or institution. Such results could also be in a capitated health plan that assumes responsibility for the health of its members.

Cost reductions can be achieved through true substitutions, in the sense that virtual visits are not simply added on to in-person visits. More importantly, cost containment can be realized in chronic disease management whereby patients assume a more active role in clinical decision making, in managing their own health in terms of understanding current and changing symptoms, managing their medications, and avoiding risky behaviors, such as smoking, excessive drinking, inappropriate diet, and sedentary life style. Early diagnosis and early treatment can result in very substantial cost savings. Similarly, primary and secondary prevention from the adoption of a healthy life style can relieve significant pressures on the health system by reducing demand for care.

11. **Can the use of technology help treat patients who have chronic conditions, by home health monitoring and "home" telemedicine? Please explain.**

I appreciate this question as it points to a critical area where telemedicine interventions would have substantial benefits. Before explaining these benefits, it may be

appreciated that chronic diseases: (a) constitute the leading causes of death in the United States; (b) account for nearly 75% of health care expenditures; and (c) are amenable to telemedicine interventions. Again, telemedicine interventions in chronic disease management enable patients to receive appropriate care, at the appropriate time and place, and in the most appropriate manner. It replaces the traditional "revolving door" arrangement for the care of chronically ill patients. The major pillars of telemedicine interventions in the management of chronic illness include patient-centered care, an activated patient, the medical home, and shared decision making. Follow-up visits to the doctor are not arbitrarily determined at set intervals, while exacerbations of chronic conditions can occur any time, and its timing cannot be predicted with any accuracy. Chronically ill patients can be monitored on a continuous basis to detect early exacerbations of symptoms and vital signs; receive prompt responses to identified needs and concerns. Early intervention would result in maximal health benefits and lower cost.

In home health monitoring (also referred to as telemonitoring, telehome health, home telehealth), patients would be provided with: (a) electronic devices that monitor significant vital signs and parameters relevant to specific patients and their particular condition(s); (b) educational materials tailored to their situation, including medication management, symptom recognition, as well as guides and inducements for the adoption of healthy life style and preventive measures; (c) tools for participating in "shared decision making" in terms of available options for treatment together with information on benefits and risks of alternative interventions; (d) ready access to their (electronic) personal health record to see trends in their health data, functional status, symptoms and benchmarks: and (e) ready access to medical advice when they have questions or concerns.

12. **In healthcare, we have frequently seen new technologies promise to save money, but in reality creating a new way for providers to bill the Medicare program. How can we ensure that telemedicine actually does deliver the savings that it promises?**

Traditionally healthcare technology as well as advanced medical procedures and pharmaceuticals have contributed to cost inflation. In all instances, these technologies have improved diagnostic and therapeutic capabilities. Improved health status typically comes at additional cost. For example, A CT scan of the brain for a stroke can reveal whether a patient is candidate for life-saving thrombolytic treatment, but it is also expensive. With telemedicine, we are considering a ***technologically-based modality of healthcare delivery*** that promises to save on cost while also improving access and quality. The question is how it delivers. This is a complex question. An appropriate response requires careful deliberation and perhaps some engineering. In other words, the desired effects may not happen automatically as a result of simply using the technology when needed or desired. Indeed, and the question can be addressed from several perspectives. From a health system/provider perspective, telemedicine must be utilized as a *true substitute* for in- person care (not an add-on) to the extent possible and medically justifiable. For example, video visits for nursing home patients can substitute for an ambulance ride to a hospital outpatient department.

Of course, the electronic health record (EHR) must be relied upon for medical history, allergies, diagnostic tests, etc. by all network participants where such networks exist. Where networks do not exist, a portable EHR would serve the same purpose. Redundancies in imaging and laboratory tests must be minimized, if not eliminated. This would require the use of standardized protocols in radiologic imaging, pathology tests and echo-cardiography, etc. Patients must be triaged at the point of need (where patients live, and travel to their daily activities such as work, or even study) to the appropriate source of care. There is no need for health problems that can be resolved at the primary care level to be referred to specialists. The emergency room must not be used for primary non-urgent care. High risk chronically ill patients who account for the largest portion of health care expenditures must be engaged and encouraged to adopt healthy life styles, to manage their medications, and to recognize and understand their medical conditions and the significance of their symptoms. In other words, for optimal results, telemedicine must be implemented in integrated systems of care where patients (or their caregivers) are actively involved in all aspects of the care process.

13. Our federal health care programs, and our commitment to fund them in the future, are being solely tested by the increasing cost of care in this country. How might telemedicine and 21st century technologies implemented on a national level help reduce those costs? Will you give some examples?

No doubt, we are facing major challenges in financing the health care system in this country and we need to find innovative ways to utilize the emerging capabilities of information and communication technology to address these challenges, specifically how to utilize emerging technologies, such as telemedicine, to help reduce or contain health care cost. It boils down to a necessary shift in the organization, care delivery and financing models still predominant. There is already a trend toward consolidation in the organization of care, as exemplified in the actual expansion of few large health systems, sometimes beyond state or regional boundaries, as well as increased partnerships between large and small health systems. This trend is likely to continue as many small community hospitals find themselves in financial difficulties. The acute care delivery model on which much of traditional care delivery has been based is no longer functional, particularly with the increased prevalence, high cost, and medical requisites for effective chronic disease management. Finally, the unbridled fee-for-service system has a built-in incentive for increasing revenue without regard to the ultimate effect on total expenditures. I have already mentioned some programs that utilize 21st century technologies that could potentially reduce cost. The key aspects of such programs include incentives for delivering quality and improved outcomes, penalties for excessive use of service and negative outcomes (including pay-for-performance, chronic disease management, activated patients, medical homes, and Accountable Care Organizations). We may still need large scale demonstration projects that test the utility of this technology in optimally integrated organizational, delivery and payment models that rely heavily on the functional aspects of health information and communication technology (ICT) – also known as telemedicine, telehealth, ehealth, mhealth, connected health, and ubiquitous health.

14. Some fear that if a cure for Alzheimer's is not found in the near term, the costs and workforce necessary to care for those with

the disease will put severe strains on our federal health care programs- that we will be hard pressed to bear. For patients with Alzheimer's, often the children are the caregivers for their parents. Such care requires constant supervision and can make it hard to hold down a job. Can telemedicine – virtual visits, patient remote monitoring, etc. – make caring for Alzheimer's patients more efficient and less burdensome on caregivers? If so, please explain?

This concern is genuine. Caregivers assume enormous responsibilities when caring for a parent with Alzheimer's Disease (AD), and they are often faced with extremely difficult choices or dilemmas, such as abandoning a parent at a time of need, disrupting family routines, or compromising employment. Caring for a parent with AD can be very challenging. In early stage AD, patients should be in contact (supervised) by a capable caregiver to ensure their safety and to retain a semblance of normal life. Caregivers need to know the situation of the patient almost continuously. They need to know about daily activities, including eating, dressing, and movement outside the home. If the patients are on medications for other AD and/or other conditions, caregivers need to ensure they are taking the proper medications according to prescribed regimen. When parents with AD are living alone, telemedicine can be used to connect the patient with the caregiver on a routine basis, thereby enabling the caregivers themselves to maintain a semblance of a normal life, to wit, hold down a job, shop, and provide for members of their family. In advanced stages of AD, telemedicine can be used to monitor remotely the patient's condition regardless of location be it at at home or in an institutional setting. In addition to allying caregiver worry, telemedicine will reduce the need to go to physicians' offices, emergency rooms, and in some instances hospitals. Also, importantly, telemedicine will allow AD patients to remain in their homes (and homes of their caregivers) and avoid being placed in long-term care facilities.

The Honorable Bill Cassidy

1. **You mention the challenges with providing telemedicine services in a fee-for-service payment system. Do telemedicine services have the ability to reduce costs and increase quality for health care on a large scale in the world of fee-for-service payment? Please explain.**

It will be a challenge to reduce cost and increase quality in a fee-for-service payment system in any modality of care, whether in-person or in telemedicine. However, some mechanisms can be brought to bear to assure quality and also place limits on price increases. For example, a fixed fee arrangement similar to a DRG on an outpatient basis, a bundled payment for an episode of illness, or pay-for-performance can be steps in the right direction. These can apply to telemedicine as well as in-person care.

Perhaps the critical issue will be how to assuage CBO's concerns that any increase in the demand for care would ultimately result in added expenditures, regardless of potential improvements in quality or health outcomes. In fact, an increase in demand for preventive care or early intervention will pay dividends in terms of preventing costly complications.

We may need to proceed with more experimentation with other payment methods and analysis of the results of such experimentation would produce definitive data rather than relying on actuarial estimates based on uncertain assumptions. For example, when the current Medicare telemedicine coverage was enacted, the CBO estimated total telemedicine expenditures at $150 million over 5 years. The actual expenditures were just over $3 million over that time period. The discrepancy can be explained largely on the basis of worst case actuarial assumptions.

2. **In your opinion, under what health care payment system is telemedicine most suited?**

As I mentioned in responding to other related questions earlier concerning the payment system, telemedicine is most suited in a system that has some form of global or bundled

payment that actually transfers some of the risk to the providers while also giving positive incentives. Examples include Medicare's "two-sided risk" method, the type incorporated in Medicare Advantage, current Pioneer ACOs, and the medical home demonstrations. A recent press release (1/30/2014) reported that savings from both the Medicare ACOs and Pioneer ACOS have exceeded $380 million. *(http://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-Releases/2014-Press-releases-items/2014-01-30.html)*

A good starting point would be high cost high intensity services where the technology can be used as a substitute for in-person care, for example, remote diagnosis for stroke victims, monitoring for congestive heart failure, remote supervision of intensive care patients, high risk pregnancies, etc.

3. Will you explain the difference in how the incentives affect telemedicine services in a fee-for-service payment system versus some sort of capitated or global payment system?

As I understand it, the CBO is concerned about the increased demand for medical services once some of the barriers to care are reduced, thereby encouraging abuse of the system by patients through increased demand or by providers simply to generate more revenue. One can think of three ways in which this scenario can occur: (1) The first is pent-up demand for care in situations where care has been simply unavailable before telemedicine; (2) the second is based on 'moral hazard' hypothesis that posits that people will use more services once they become easier, or less costly, to do so; and,(3) the third is based on the "physician-induced demand' hypothesis that posits that physicians would simply try to generate more demand for their services either to make up for reductions in income or a desire to achieve a target income. Both moral hazard and physician-induced demand hypotheses can be obviated by a change in the payment system. Pent-up demand necessarily reflects a situation of un-met need where people were unable to receive the care they need by virtue of where they live or their income. That is, people who were unable to obtain necessary medical services to protect their health and avoid illness and disability would be likely to increase their use of such services once the service becomes more accessible to them by virtue of

telemedicine. Putting the human argument aside, it is extremely hazardous to estimate the actual volume of care that would be demanded once needed services are available closer to home. It is also difficult to obtain accurate estimate of the volume of unmet need in a given environment. For example, total telemedicine expenditures in Medicare in 2013 amounted to around $12 million.

To the extent that telemedicine introduces greater efficiencies into the healthcare system and, by so doing, reduces expenditures and costs, it can be expected that any temporary "bump" in demand will be compensated for by savings. Furthermore, it may be appreciated that much of physician-related overutilization can be accounted for in high-cost procedures, surgery, hospitalization and radiology. The cost of some of these services can be reduced in telemedicine by substitution, such as keeping the patient at the local community hospital where these services are typically lower.

The Honorable Renee Ellmers

1. I would like to continue the discussion on care giving. As a nurse for over 20 years, it is a topic I am very familiar with. I would like to share some statistics:

    - American caregivers are predominantly female (66%) and are an average of 48 years old.
    - Most care for a relative (86%), more often a parent (36%)
    - Family caregivers provide an average of 20 hours of care per week
    - One in seven caregivers provides care, over and above regular parenting, to a child with special needs (14%)
    - Care giving lasts an average of 4.6 years

    Making it easier to get care to those who may have trouble traveling long distances to see a provider will improve outcomes and lives. Patients who have chronic conditions live longer and healthier lives when they have coordinated

care and adhere to treatment programs. Today, children, often the daughter, are the caregivers for their parents. They are the vital component of coordinated care. Millions of women, who are caregivers, want to be there for their loved ones but also need to be home to take care of their children or do that job.

With the billions of dollars invested in using broadband technologies national networks with high speeds and capacity, today's state by state licensing of doctors is a barrier that should be removed. Established in the 1800s, it is an antiquated relic and it is time for it to be changed as is it proving to be an impediment to providing quality care for seniors. This is why I am a proud cosponsor of Reps. Nunes and Pallone's H.R. 3077, the Tele-Med Act. This bill would allow Medicare doctors licensed in one state to see a Medicare beneficiary across state lines without a separate license.

Can we not use technology to ensure family members and caregivers are included in discussions with the provider and the patient they are caring for? Would it not improve communications if the caregiver can speak with the patient's doctor directly, with the patient and for the patient, and be kept up-to-date with what the doctor is telling the patient, without having that caregiver fly across the country to attend a short appointment? What barriers are we facing to making this a reality?

Of course, we can use the technology to facilitate discussions between family members and caregivers and remote providers while having access to the patient's electronic medical record. As well, with this technology, there is no need for the caregiver to fly across the country or drive a long distance to attend an appointment of any length, short or long. I think you are pointing out a critical benefit of telemedicine.

There are three kinds of barriers to improving communication between the provider and the patient or his/her caregiver when they are separated by geography. (1) The most critical barrier is the state-based licensing of medical practice, which requires the doctor to be licensed in the state where the patient is located. In fact, there is no licensing

issue when the patient travels to the state of his/her preferred provider and communicate directly. That would place the burden on the patient, the family and/or caregiver. The problem would be obviated if both sides can rely on information technology to communicate effectively and inexpensively. (2) Whether within state or inter-state, reimbursement remains a critical barrier to good, effective communication between the doctor and the patient. Currently, there are restrictions and hurdles for intra-state telemedicine practice, even when "virtual interactions" are demonstrably in the best interest of the patient, family and/or caregiver. (3) A third and related barrier has to do with reimbursement restriction for only online (live) videoconferencing, when other modes of communication with equal content and validity would enable full medical consultations in more efficient ways for both provider and patient.
I concur that the optimal telemedicine intervention would include your recommendation to have the caregiver "online" with the patient and provider in order to facilitate informed decision making on behalf of the patient in direct contact with the provider.

The Honorable Joe Barton

1. **How secure are medical records when using this kind of technology?**

HIPAA rules now in full effect impose heavy penalties (both legal and financial) on the providers to protect all health information, including exchange of information that can be linked, even indirectly, to a given patient. Hence, this issue has been fully addressed by HIPAA stringent rules.

2. **There are some concerns that if the doctor, the patient and the health insurance are in different places Medicare and Medicaid sometimes do not know how to or are unwilling to calculate the charges that result from a telemedicine visit. Would you please speak to that issue?**

Both Medicare and Medicaid base their fee-for-service payment on where the physician or other provider practices, not where the patient resides or comes from. These fees are standardized in terms of insurance coverage, typically using approved CPT codes.

The Honorable John D. Dingell

1. **Given your expertise in this field, do you believe that investing in telemedicine technologies to improve chronic disease management will save money over the long run? Please explain.**

If I may, I would like to quote the major conclusions addressing this question from a recent literature review that was presented in special briefings to both House and Senate on May 20 and 21, 2014, to wit, "There is a growing and complex body of evidence that attests to the potential of telemedicine for addressing the problems of access to care, quality of care, and health care costs in the management of three chronic diseases [congestive heart failure, stroke, and chronic obstructive pulmonary disease]. Despite some inconsistencies in methodologies, the preponderance of the evidence produced by telemonitoring studies points to significant trends in reducing hospitalizations and emergency department visits, preventing or limiting illness severity and episodes resulting in improved outcomes." *Bashshur, Shannon and Smith, op. cit.*

2. **Do you believe that the use of telemedicine can help improve access to care in medically underserved communities like the Upper Peninsula in Michigan? Please explain**.

There is no doubt that people living in medically underserved regions, such as many communities in the Upper Peninsula of Michigan and many other communities in the country can gain ready access to specialist care located at substantial distances from where they live or work by virtue of telemedicine. For example, there is already an active telemedicine network that serves communities in the Upper Peninsula. However,

there are many instances in which patients present difficult health problems that require the attention of a specialist outside this network. If a telemedicine consultation is arranged, the patient would not have to undertake a long, and, in some seasons, an arduous trip to a tertiary care center located in the southern region of the Lower Peninsula.

3. **Is it correct that CMS has limited physician reimbursement for telemedicine to services provided in rural areas and do you believe that that is a good limit? Please explain.**

Yes, this is correct, and whatever sense the Medicare restrictions in section 1834(m) made in 2000, they are no longer valid or appropriate. Indeed, they are inefficient and arbitrary at best. Telemedicine is the only benefit under Medicare that is determined by geographic location of the patient, thus invoking unequal treatment under the law. Under-served residents of urban areas should be equally qualified as residents of rural areas. Congress has directed CMS to study and report on opportunities to expand very restrictive coverage, so far without much success. That is, when 1843(m) was enacted as section 223 of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act (BIPA) of 2000, Congress directed CMS to study and report on opportunities to expand very restrictive coverage, as follows:

d) STUDY AND REPORT ON ADDITIONAL COVERAGE-

(1) STUDY- The Secretary of Health and Human Services shall conduct a study to identify—

(A) settings and sites for the provision of telehealth services that are in addition to those permitted under section 1834(m) of the Social Security Act, as added by subsection (b);

(B) practitioners that may be reimbursed under such section for furnishing telehealth services that are in addition to the practitioners that may be reimbursed for such services under such section; and

(C) geographic areas in which telehealth services may be reimbursed that are in addition to the geographic areas where such services may be reimbursed under such section.

(2) REPORT- Not later than 2 years after the date of the enactment of this Act, the Secretary shall submit to Congress a report on the study conducted under paragraph (1) together with such recommendations for legislation that the Secretary determines are appropriate.

4. How else has CMS restricted reimbursement for telemedicine in the United States today?

The major Medicare restrictions on telehealth are the work of Congress. Four other major barriers in 1834(m) are--

- Essentially no coverage for physician services based on asynchronous, or store-and-forward, communications (discussed further in #5)
- The patient must be at a designated health establishment – importantly, no coverage for home care.
- Some providers are not covered for telehealth services as otherwise permitted in Medicare – the major precluded categories are the therapies (physical, occupational, speech, audiology, and respiratory).
- Coverage is limited to specific CMS determined CPT/HCPCS service codes.

Also, pertaining to fee-for-service beneficiaries, there is no explicit coverage for remote patient monitoring services.

Plans for Medicare Advantage also cite problems with Medicare law, regulation, and administration hindering their use of telemedicine services.

5. Alaska and Hawaii are exempt from CMS reimbursement restrictions. Is the use of telemedicine more prevalent in those States in comparison to the continental 48 states? Do you believe that telemedicine technology used in Alaska and Hawaii are a model for the rest of the country?

The special provision regarding Alaska and Hawaii has to do with asynchronous services provided by Medicare demonstration programs in existence in 2000. The use of telemedicine in Alaska is very prevalent. I don't have data on Hawaii.

Common asynchronous services that are blocked by this restriction are interpretations of retinal scans associated with prevention of diabetic retinopathy, dermatologic images, some cardiac data, and video clips of patient behaviors.

Curiously, CMS covers comparable services by radiologists and pathologists under their definition of "physician services," not telemedicine. These include situations when a physician "is able to visualize some aspect of the patient's condition without the interposition of a third person's judgment."

I think it is time for CBO to analyze the true effects of expanded coverage for asynchronous services, at least for key providers such as federally-qualified health centers, critical access hospitals, or sole community hospitals.

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

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May 22, 2014

Dr. Ateev Mehrotra
Policy Analyst
RAND Corporation
20 Park Plaza, 9th Floor, Suite 920
Boston, MA 02116

Dear Dr. Mehrotra:

Thank you for appearing before the Subcommittee on Health on Thursday, May 1, 2014, to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Thursday, June 5, 2014. Your responses should be mailed to Sydne Harwick, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to **Sydne.Harwick@mail.house.gov**.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Frank Pallone, Jr., Ranking Member, Subcommittee on Health

Attachments

Expanding the Use of Telehealth

Promise and Potential Pitfalls

Addendum

Ateev Mehrotra

RAND Office of External Affairs

CT-409/1

June 2014

Document submitted on June 5, 2014 as an addendum to testimony presented before the House Energy and Commerce Committee, Subcommittee on Health on May 1, 2014

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Ateev Mehrotra[1]
The RAND Corporation

Expanding the Use of Telehealth:
Promise and Potential Pitfalls
Addendum[2]

Before the Committee on Energy and Commerce
Subcommittee on Health
United States House of Representatives

June 5, 2014

The subsequent questions and answers found in this document were received from the Committee for additional information following the hearing on May 1, 2014 and were submitted for the record.

Thank you Chairman Pitts, Ranking Member Pallone, and distinguished members of the Subcommittee for providing me the opportunity to respond to questions and expand further on my written and oral testimony of May 1. Although I received a number of questions in writing from the Committee following the hearing, I have answered only those questions for which I believe I have relevant expertise and important insights that might be useful to the subcommittee. My expertise is in the area of payment reform and the impact of delivery innovations on costs and quality in health care. I did not answer questions on topics for which I do not have particular expertise, e.g., those addressing privacy issues.

The Honorable Joseph R Pitts

QUESTION: What role can telemedicine play to facilitate new payment models?

QUESTION: What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?

ANSWERS: These two questions from the Chairman address the critical issue of payment reform. As I noted in my testimony, I believe that telehealth should not be defined narrowly as replacing face-to-face visits with videoconferencing. Instead, telehealth should be defined more broadly as using technology to deliver care in a mode other than a traditional face-to-face visit. In

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[1] The opinions and conclusions expressed in this testimony are the author's alone and should not be interpreted as representing those of RAND or any of the sponsors of its research. This product is part of the RAND Corporation testimony series. RAND testimonies record testimony presented by RAND associates to federal, state, or local legislative committees; government-appointed commissions and panels; and private review and oversight bodies. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors.

[2] This testimony is available for free download at http://www.rand.org/pubs/testimonies/CT409z1.html.

my written testimony, I highlighted many forms of telehealth that do not use a videoconference, such as messaging, phone calls, and remote monitoring. I provided those examples because I believe that these forms of telehealth have particular promise for addressing the triple aim – improving quality, decreasing costs, and improving access.

The question of how to define telehealth is relevant to payment reform because the current fee-for-service model relies primarily on payments for face-to-face visits. The focus on face-to-face visits has been echoed in the limited reimbursement available for telehealth, which generally focuses on videoconference visits between a physician and patient. The concern is that this encourages only a narrow form of telehealth.

I am not advocating that the Congress or the Centers for Medicare and Medicaid Services (CMS) determine a fee-for-service payment for each form of telehealth technology. Technology changes rapidly and any definition that specifies the type of technology runs the risk of being outdated very quickly. Rather, I believe that increased use of bundled payment and other global payment methods combined with rigorous quality measures are the best way to encourage appropriate and cost-effective use of telehealth.

This is best illustrated with an example. There is great promise for one form of telehealth - remote monitoring of patients in intensive care units. Instead of paying for this remote monitoring via a separate payment, I would advocate for two changes. First, I would shift to a single prospective payment for both Part A (hospital) and Part B (physician) payments for a hospital stay. The combination of Part A and Part B payments is being encouraged through CMS' Bundled Payments for Care Improvement initiative (Model 1), CMS' Acute Care Episode demonstration project, as well as private initiatives. I believe this should be implemented more broadly. Second, I would advocate for rigorous assessment of hospital outcomes. This is being currently done via CMS' Hospital Compare program, but right now the program only focuses on mortality rate for a few select conditions and procedures. Outcome monitoring should be implemented more broadly. The combination of these two changes, bundled payment and rigorous quality measurement, create an optimal environment for effective use of remote monitoring of intensive care units (and other forms of telehealth that involve hospitals). If these two changes are made and remote monitoring improves outcomes and decreases costs, then hospitals will shift on their own to use this form of telehealth. A separate payment is not necessary as it is in the hospital's best interests to pay for remote monitoring under these circumstances. It is important to emphasize that within this environment, hospitals will only focus on those forms of remote monitoring and telehealth that are proven to be effective. Also, this will encourage competition in the market among firms and

physicians that provide remote monitoring to lower their costs and demonstrate they improve outcomes.

The Honorable Joseph R Pitts

QUESTION: Can telemedicine raise the quality of service provided to patients? If so, how?
QUESTION: Can telemedicine lead to more patients receiving care without costly, unnecessary, and time consuming trips to their doctors? If so, how?

ANSWERS: The two questions from the Chairman are quite related. Most research has focused on whether the quality of telehealth is equal to a face-to-face visit. Relatively little research has examined whether telehealth can raise the quality of care. I believe the greatest potential for telehealth to improve quality is in the area of chronic illness care.

As many others have noted, the burden of disease in the United States has shifted from acute to chronic illnesses. Optimal management of chronic illness requires frequent check-ins by patients for monitoring of symptoms, laboratory testing, and adjustment of medications. Such check-ins can sometimes be quite short. Travelling to, and waiting in, a clinic for these check-ins can require a significant amount of a patient's time. The time required to do so and the costs of this time results in considerable drain on patients and employers due to lost time from work and, therefore, productivity. Not surprisingly, given these barriers, chronic illness care is suboptimal for many patients.

Many check-ins for chronic illness do not require in-person visits and can be provided by telehealth. For example, many health systems are implementing "virtual visits" via telephone or secure messaging to optimize chronic illness care and there is some evidence that such systems improve outcomes. Telehealth, in this instance, can improve compliance and management of chronic illnesses by deterring costly and unnecessary in-person visits.

The Honorable Joseph R Pitts

QUESTION: In healthcare, we've frequently seen new technologies promise to save money, but in reality creating a new way for providers to bill the Medicare program. How can we ensure that telemedicine actually does deliver the savings it promises?
QUESTION: In your experience, does fee-for-service Medicare – with its emphasis on paying for every service individually – create an intrinsic barrier to the value of telemedicine? Has Medicare Advantage been able to encourage its use?

ANSWERS: It is almost impossible in healthcare to declare whether a given technology is always high or low value. Value depends on the clinical circumstance. For example, coronary artery angioplasty is a life-saving and cost-effective intervention for some patients. For other patients, however, coronary artery angioplasty is overused – it does not improve outcomes at considerable societal cost. This pattern of both beneficial use and overuse is true for many other important technologies such as MRI machines or endovascular interventions.

This tension between beneficial use and overuse is applicable to different forms of telehealth technology. Indeed, overuse might be of particular concern with telehealth. The very advantage of telehealth, its ability to make care convenient, is also potentially its Achilles' heel. In this sense, telehealth could be "too convenient."

It is difficult for the fee-for-service system to account for the clinical scenario and whether it is a high value or low value use of the technology. By paying for the technology under all circumstances, the fee-for-service system can have the unintended consequence of encouraging overuse. Three types of checks have been put in place to address this unintended consequence. First, for certain new technologies, CMS and other payers have introduced coverage decisions where a technology will only be reimbursed under certain clinical circumstances or if the hospital is registered or certified as a Center of Excellence. In theory, these mechanisms encourage monitoring of the clinical circumstances in which the procedure is performed and therefore discourage overuse. Second, quality measures can be used as a check on overuse. For example, one commonly used quality measure monitors use of imaging for patients with back pain. The goal is to discourage overuse of MRI and CT scans. Third, payment methods such as bundled payment for episodes or total costs of care are used to discourage overuse. Because these payment methods do not pay for individual services, providers have more flexibility to decide on the most appropriate and cost-effective means of delivering care for a given patient and clinical situation.

One barrier to applying the fee-for-service system for telehealth is that it requires that each individual service be valued. This is extremely difficult. The current process for valuing services has garnered much criticism and telehealth services might be even more difficult to value from a practical perspective. For example, cardiology care can be provided via many telehealth technologies – email, phone call, store-and-forward, simple videoconferencing, and more complex telehealth visits that include remote stethoscopes or EKGs. These technologies obviously vary in their costs for providers and therefore if they were paid under fee-for-service they would have a different reimbursement. Yet, it may be impossible to set the valuations correctly and this will create distortions in which forms of telehealth are encouraged.

Because Medicare Advantage plans are paid under capitation, it is reasonable to believe such plans might be more likely to encourage cost-effective use of telehealth. I am unaware of any research that has compared the use of telehealth in Medicare Advantage plans vs. Medicare fee-for-service.

FRED UPTON, MICHIGAN
CHAIRMAN

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May 22, 2014

Dr. Thomas E. Beeman
President and CEO
Lancaster General Health
555 North Duke Street
Lancaster, PA 17604

Dear Dr. Beeman:

Thank you for appearing before the Subcommittee on Health on Thursday, May 1, 2014, to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

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Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Frank Pallone, Jr., Ranking Member, Subcommittee on Health

Attachments

Comments on

Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients
To
House Energy & Commerce Committee
And
House Energy & Commerce Committee, Health Subcommittee

By
Lancaster General Hospital

June 3, 2014

Dear Subcommittee Chairman Pitts,

On behalf of Lancaster General Hospital, I am pleased to submit the attached responses to the additional questions and member requests for the record. Thank you again for the opportunity to testify to the Committee on a very important topic for our nation.

Lancaster General Hospital looks forward to continuing to work with you, your Committee members and the Congress to address the issue of telemedicine in our healthcare system. Please do not hesitate to contact me if I can be of service.

Sincerely,

Thomas E. Beeman Ph.D., FACHE
President& Chief Executive Officer
President, Lancaster General Hospital

Attachment

c: Jo Ann Lawer, Director, Government Affairs & Grants

Thomas E. Beeman, President and Chief Executive Officer
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(717) 544-1748 · Fax (717) 544-5761 · tebeeman@lghealth.org · www.LGHealth.org

The Honorable Joseph R. Pitts

1. What role can telemedicine play to facilitate new payment models?

As has been seen in many industries, such as retail and banking, the advent of new technology and a significant increase in connectivity has far-reaching impacts. So too, will advancements in connectivity for healthcare impact the delivery of care. A key element that will stunt or support growth in this sector, will be development of effective, aligned and appropriate payment models which encourage health systems, providers and patients to use telemedicine capabilities in ways which do not compromise the end goal – to provide high quality, high value care at the appropriate time and in the appropriate setting.

At Lancaster General Health, we offer different types of telemedicine options to various different populations. Key to development for each of these pilots however, has been an infusion of capital and human resources from the health system's budget to launch each initiative. As an example, a pilot to provide telemedicine services to elderly cardiology patients at the Willow Valley Retirement Community has required video software and peripheral examination device hardware including high definition digital cameras, and a high speed secure internet connection. LGH conducted this pilot without reimbursement in order to test the model. Medicare provides only limited reimbursement for virtual visits in comparison to in-person visits. Thus, while it is a privilege to develop these innovations in our community, our system's ability to continue to do so will require the support of aligned incentives to pursue these types of investments.

In addition to appropriately incentivizing health systems to support investments in these new technologies, aligning physician reimbursement for providing this type of care is equally, if not more important. Under traditional fee-for-service reimbursement models, direct-to-consumer telehealth has been poorly reimbursed. Twenty-two percent of surveyed organizations reported insufficient reimbursement as the greatest barrier to virtual visit implementation.[1] Adoption of the new method of care delivery is critical to the success of any pilot and to that end, a payment model which supports these types of care delivery is necessary. The Advisory Board provides three different examples of reimbursement models which have been tested at various facilities[2]:

1) Time-based compensation: RVU level assigned based on length of appointment and complexity
2) Differentiated payment: Separate check paid to physicians for the number of virtual visits conducted
3) Panel-based incentives: Compensation models which weight usage of web-based patient portals as a part of total percentage compensated

[1] 2013 Healthcare Benchmarks: Telehealth and Telemedicine. (2013). : Healthcare Intelligence Network.

[2] Virtual care: Three options for compensating MDs. (2014, May 21). The Advisory Board Company. Retrieved June 3, 2014, from http://www.advisory.com/research/marketing-and-planning-leadership-council/the-growth-channel/2014/05/virtual-care-three-options-for-compensating-mds?elq=96ea2eb69dc649dc846a3df80f3cd556&elqCampaignId=8140

Another beneficial payment reform would be in modifying reimbursement structures to allow more than one physician to bill for an appointment. Telemedicine provides an enhanced ability for multiple providers to provide needed insight to a patient and provider, supporting collaboration of care givers, increased patient convenience, shorter diagnosis times and enhanced access to specialists which, in current models, is not reimbursed.

The third major stakeholder in a telemedicine encounter is the patient. A key benefit to telemedicine is the access that it can provide patients in any setting which has the appropriate apparatus and connectivity. At Lancaster General Health, we have provided patients in our Care Connections program[3] with the technology tools they need in order to have access to our web-based patient portal MyLGHealth. The care team in this practice uses voice and video to collaborate with each other when caring for patients during home visits.

In reviewing each of these stakeholders, a key opportunity for payment reform would be in the development of improved capitation models – allowing providers and health systems to take on the risk associated with caring for patients, thus encouraging those delivering care to creatively and collaboratively identify solutions which deliver high quality, high value outcomes. Models which support this type of thinking transition the delivery of healthcare from a transactional, volume based industry to a comprehensive, value based one. Elevating the care of patients by providing appropriate and effective reimbursement models will go far to help align key stakeholders to the telemedicine effort.

2. What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?

At Lancaster General Health, we will reiterate our position that providing more autonomy to health systems and providers to take on the shared risk of managing patient populations would support the effective use of telemedicine. An effective transition from the fee-for-service model to fee-for-value supports innovation at the local level and would include introduction of Capitation. Capitation would provide a "per member, per month" payment which would cover the cost of care needs for each patient within the designated population. Ultimately, payment reform of this kind will reduce fragmentation of services and also improve the coordination of services as patients will be treated as a whole, rather than a sum of parts.

The Affordable Care Act created a number of value-based alternative payment models to fee-for-service reimbursement under Medicare in order to improve care coordination and reduce costs. Unfortunately, these programs, including accountable-care organizations (ACOs), medical homes, and bundled payments, have not been able to benefit from gains attributed to using

[3] Care Connections is a unique clinic which focuses an interdisciplinary team of care and social service providers on those patients who are high utilizers of both health and social support services.

telehealth. Consequently, the American Telemedicine Association (ATA) made two recommendations to address this in March 2014[4]:

- Department of Health and Human Services (HHS) and Centers for Medicare and Medicaid Services (CMS) should waive the Medicare restrictions on telehealth in section 1834(m) for ACOs and Center for Medicare and Medicaid Innovation (CMMI) payment models for bundled acute care and medical homes.
- The agencies should also waive section 1895(e)(1) for these alternative payment methods to allow home telehealth and remote monitoring for "homebound," Medicare beneficiaries.

Because of the role Medicare reimbursement plays on the entire health insurance industry, we strongly support the proposals which encourage Medicare reimbursement for telemedicine solutions as they will serve as a catalyst for private insurers to make similar shifts in thinking.

3. How has the advancement of telemedicine in recent years benefited the discovery, development or delivery of healthcare?

The American Telemedicine Association has outlined several categories of major benefits:

Improved Access – For over 40 years, telemedicine has been used to bring healthcare services to patients in distant locations. Not only does telemedicine improve access to patients but it also allows physicians and health facilities to expand their reach, beyond their own offices. Given the provider shortages throughout the world, in both rural and urban areas, telemedicine has a unique capacity to increase service to millions of new patients. As Lancaster General Health transitions away from fee-for-service reimbursement and towards population health management, it is essential that we test and develop expertise in new methods of care delivery that allow us to extend our provider pool and provide greater access to care that is affordable and convenient.

Expert care- Telehealth represents a way to steer patients to a particular clinician with the most expertise in treating that particular condition that they would not otherwise have had access to. Combined with new 'cognitive' listening, thinking and learning computing machines such as IBM's "Watson," telehealth will be able to recommend treatment options to patients in a way that combines the latest research available.[5] This increases efficiency of specialists' time, and provides specialists with an opportunity to expand their consulting network. Beyond a specific patient visit, telehealth can link physicians in various specialties to discuss difficult patient cases. For example, at Lancaster General Health, our medical and radiation oncologists collaborate with

[4] Hubbard, M. (2014, March 5). ATA Asks Federal Government to Lift Restrictions on Telehealth for ACO's, Remote Monitoring. American Telemedicine Association.
[5] "Artificial Intelligence in Psychological Practice: Current and Future Applications and Implications." Luxton, David. Professional Psychology: Research and Practice 11 Nov 2013.

pathologists, radiologists, nurse navigators, members of the care team, and guests from the University of Pennsylvania in our monthly tumor board telehealth meetings.

Cost Efficiencies – Reducing or containing the cost of healthcare is one of the most important reasons for funding and adopting telehealth technologies. Telemedicine has been shown to reduce the cost of healthcare and increase efficiency through better management of chronic diseases, shared health professional staffing, reduced travel times, and fewer or shorter hospital stays. Partners HealthCare System conducted a 2007 study examining the value of provider-to-provider telehealth technologies. This study examined several specific telemedicine applications and used a rigorous approach to define both costs and financial benefits to the nationwide implementation of each application. For the use of telemedicine to join Emergency Rooms, the cost to equip all US emergency departments with hybrid telehealth technologies could easily be covered by savings from a reduction in transfers between emergency departments. From a baseline of 2.2 million patients transported each year between emergency departments at a cost of $1.39 billion in transportation costs, hybrid technologies would avoid 850,000 transports with a cost savings of $537 million a year.[6]

At Lancaster General Health, we will see continued cost savings by using the data gleaned from our electronic health record to better understand the health needs of our population. As we have seen through success in our Care Connections program, per member per month spending has decreased on average from $3,489 to $2,819. While this is a small subset of our patient population, we strongly believe that this is indicative of the types of savings we will continue to see as telehealth strategies continue to develop.

Improved Quality – Studies have consistently shown that the quality of healthcare services delivered via telemedicine, are as good as those given in traditional in-person consultations. In some specialties, particularly in mental health and ICU care, telemedicine delivers a superior product, with greater outcomes and patient satisfaction.

Patient Demand – Consumers want telemedicine. The greatest impact of telemedicine is on the patient, their family and their community. Using telemedicine technologies reduces travel time and related stresses for the patient. Over the past 15 years study after study has documented patient satisfaction and support for telemedicine services. Such services offer patients the access to providers that might not be available otherwise, as well as medical services without the need to travel long distances. A new survey by PwC's Health Research Institute (HRI) found that consumers are willing to abandon traditional care venues for more affordable and convenient alternatives. "Nearly half of all respondents said they would choose new options for more than a dozen common medical procedures, such as using an at-home kit to diagnose strep throat, or having chemotherapy delivered at home."[7]

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[6] "The Value of Provider to Provider Telehealth Technologies," Cusack, Caitlin. Et, al. Center for Information Technology Leadership. Charlestown, MA. 2007

[7] "Healthcare's new entrants: Who will be the industry's Amazon.com?" New Health Economy. Price Waterhouse Cooper's Health Research Institute, April 2014.

4. As the capacity for telemedicine continues to grow, what regulatory bottlenecks are most likely to get in the way of its further development?

State-based licensing requirements prevent physicians from treating patients outside states in which they are licensed to practice. The VETS (Veterans E-Health and Telemedicine Support) Act, passed in early 2013, now enables VA health professionals to practice tele-mental health across states; similar pieces of federal legislations (HR 6719, HR3306) have been introduced to allow other providers to practice across states but they have not been passed[8].

5. Can telemedicine raise the quality of service provided to patients? If so, how?

Continuity of care is an emerging challenge for health providers that can be aided through the use of virtual technologies. Recent studies in telemedicine have shown the lowest rates for follow-up visits at 6% compared with 12% for those seen in a PCP office and 20% follow-up visits scheduled for those seen in the emergency department.[9] Further research is required to determine whether information or management continuity improves outcomes.[10] However, we believe the following is illustrative of the benefits both continuity and information can have on enhancing patient engagement and raising the quality of services provided to patients.

"Leon" is a patient in our Care Connections program. Care Connections is a multidisciplinary practice focused on the needs of "superutlizers", those who use high amounts of social and health services. "Leon", a diabetic, was a "superutilizer". In a six month period prior to enrolling in Care Connections, "Leon" had eight emergency department (ED) visits of which four led to lengthy inpatient hospitalizations. All eight of these visits were caused by uncontrolled, elevated blood sugar. In the first few weeks at Care Connections, "Leon" was introduced to MyLGHealth, our secure online patient portal. Previously, "Leon" would receive his test results on pieces of paper, at each encounter. Following his introduction to Care Connections, his test results were aggregated on the patient portal, showing a history of his different test results. Seeing the aggregate of the results, "Leon" soon became engaged in understanding the root causes of his many visits to the ED, linking diet, medication and test results together, better understanding the disease that plagued him.

Three months after joining Care Connections, "Leon" has had no ED visits or inpatient hospitalizations. "Leon" continues to track his own glucose values, checks his own lab values, and reviews past Care Connections visit information on MyLGHealth.

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[8] Reeves, R., & Kasinadhuni, M. (n.d.). Telehealth: Driving Adoption of Virtual Visits. . Retrieved June 3, 2014, from http://www.advisory.com/~/media/Advisory-com/Research/MPLC/Research-Study/2014/Virtual-Visits/27835_MPLC_Telehealth_FINAL_3%2011%2014.pdf

[9] "Analysis of Teladoc Use," Pines, Lori. And Mehrotra, Ateev. Feb 2014. Health Affairs, 33, no. 2: 258-264.

[10] "The association between continuity of care and outcomes: a systematic and critical review" Van Walraven, C., Oake, N., Jennings, A. and Forster, A. J. (2010), Journal of Evaluation in Clinical Practice, 16: 947–956.

6. Can telemedicine lead to more patients receiving care without costly, unnecessary, and time-consuming trips to their doctors?

In brief, yes. Lancaster General Health cardiac and geriatric specialty providers were experiencing a backlog of patients, resulting in a delayed waiting period for appointments. Lancaster General Health identified an access need for seniors living in retirement communities that due to physical and cognitive limitations can no longer drive. Visit types were studied by physicians and telemedicine technology was evaluated to determine that low-level routine follow up visits could be seen via telemedicine to provide convenience to patients and enable providers to gain efficiencies in the amount of patients they could treat. A telemedicine cart was placed in the Willow Valley retirement community (the second largest retirement community in the United States) enabling patients to connect with their cardiac or geriatrician specialist.

Lancaster General Health is also utilizing telemedicine to improve access and reduce travel time for our own employees while at work. Previously, if an employee experienced a work related injury they either had to report to the Emergency Department or travel to our occupational medicine provider.[11] Since the implementation of telemedicine technology connecting employees remotely to occupational medicine providers, average visit times are 28 minutes, and 31 trips to the Emergency Department have been avoided in a four month period.[12] These telemedicine efforts represent time and cost savings to the health system and greater convenience for our employees.

In addition to Lancaster General Health's experience, the University of Arkansas evaluated patients' cost savings in a telehealth project during 1998-2002. The study population consisted of self-selected telemedicine patients in rural Arkansas (N = 410 consults). Results suggest that without telemedicine, 94% of patients would travel greater than 70 miles for medical care; 84% would miss one day of work; and 74% would spend $75-$150 for additional family expenses. With telemedicine, 92% of patients saved $32 in fuel costs; 84% saved $100 in wages; and 74% saved $75-$150 in family expenses.[13]

7. What are some of the barriers to accessing care and how can telemedicine help those in need of critical care?

Specific to LG Health, the cardiology and geriatrics pilot with seniors also uncovered that those receiving advanced supportive care services, and are therefore physically frail, require the use of an ambulance to transport them to routine medical visits. Transportation via ambulance can cost a patient hundreds of dollars, and place additional risk on their health. Telemedicine technology

[11] Travel time to Occupational medicine offices average 30 minutes to 1 hour, from LG Health's over 45 ambulatory and specialty locations throughout central Pennsylvania.
[12] LG Health Work Related Telemedicine Report, 2014.
[13] Ann B. Bynum, Cathy A. Irwin, Charles O. Cranford, and George S. Denny. Telemedicine Journal and e-Health. December 2003, 9(4): 361-367. doi:10.1089/153056203772744680.

enables providers to bring care to the sickest of patients in the safety and comfort of their daily care arrangement.

In 2011, a team from the University of Massachusetts demonstrated that the implementation of a tele-ICU intervention was associated with reduced adjusted odds of mortality and reduced hospital length of stay, as well as with changes in best practice adherence and lower rates of preventable complications.[14] In 2013, the same lead author from the previous JAMA article published a more recent review which examined the impact of Philips' eICU Program on nearly 120,000 critical care patients across 56 intensive care units, 32 hospitals and 19 health systems over a five-year period. The research demonstrated reductions in both mortality and length of stay. The results were statistically significant on both an unadjusted and severity-adjusted basis, according to researchers.[15]

8. How has the advancement of telemedicine in recent years benefited your health system?

To meet consumer demands of convenience, access, and affordability, virtual health solutions such as telemedicine provide remote access to primary care and specialists in the examples described above for our Care Connections practice and our telemedicine program at Willow Valley Communities. Developing and implementing telemedicine technology has allowed Lancaster General Health to respond to the demands of our consumers and stay financially competitive.

9. The administrative burden that Congress and federal government have placed on providers also takes time away from patients. It is something this Committee sought to partially address in Dr. Burgess' SGR reform bill, H.R. 4015, but much more needs to be done. In the meantime, are there ways in which you could imagine telemedicine easing the administrative burden on providers thereby freeing up more time for the care of patients?

Organizations investing in virtual visits need software development expertise, experience in direct-to-consumer marketing strategy, physicians and information technology staff available and interested in operating the program, and significant capital for developing and operating the service. However, many provider organizations lack these resources.[16]

As we discussed above, new payment models would shift reimbursement from fee-for-service to value. With this shift, we anticipate more physicians looking for alternative methods to care for patients, like telemedicine, to reduce readmissions and improve chronic illness.

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[14] Lilly CM, Cody S, Zhao H, et al. Hospital Mortality, Length of Stay, and Preventable Complications Among Critically Ill Patients Before and After Tele-ICU Reengineering of Critical Care Processes. JAMA. 2011;305(21):2175-2183. doi:10.1001/jama.2011.697.

[15] http://www.healthcareitnews.com/news/critical-care-telehealth-shows-its-worth

[16] "Telehealth: Driving Adoption of Virtual Visits," Reeves, Rachel. Kasinashuni, Madhavi. The Advisory Board. 22 April 2014.

The Honorable Renee Ellmers

1. **I would like to continue the discussion on care giving. As a nurse for over 20 years, it is a topic I am very familiar with. I would like to share some statistics:**

   - **American caregivers are predominantly female (66%) and are an average of 48 years old.**
   - **Most care for a relative (85%), most often a parent (36%).**
   - **Family caregivers provide an average of 20 hours of care per week.**
   - **One in seven caregivers provides care, over and above regular parenting, to a child with special needs (14%).**
   - **Care giving lasts an average of 4.6 years.**

Making it easier to get care to those who may have trouble traveling long distances to see a provider will improve outcomes and lives. Patients who have chronic conditions live longer and healthier lives when they have coordinated care and adhere to treatment programs. Today, children, often the daughter, are the caregivers for their parents. They are the vital component of coordinated care. Millions of women, who are caregivers, want to be there for their loved ones, but also need to be home to take care of their children or do their job.

With the billions of dollars invested in using broadband technologies national networks with high speeds and capacity, today's state by state licensing of doctors is a barrier that should be removed. Established in the 1800s, it is an antiquated relic and it is time for it to be changed as it is proving to be an impediment to providing quality care for seniors. This is why I am a proud cosponsor or Reps. Nunes and Pallones's H.R. 3077, the Tele-Med Act. This bill would allow Medicare doctors licensed in one state to see a Medicare beneficiary across state lines without a separate license.

Can we not use technology to ensure family members and caregivers are included in discussions with the provider and the patient they are caring for? Would it not improve communications if the caregiver can speak with the patient's doctor directly, with the patient and for the patient, and be kept up-to-date with what the doctor is telling the patient, without having that caregiver fly across the country to attend a short appointment? What barriers are we facing to making this a reality?

At Lancaster General Health, we agree that telehealth will provide additional opportunities for patients' caregivers to continue as active participants in the patient's plan of care. We have over 80,000 patients now accessing their clinical record online. This access also includes the ability for a proxy, a patient's caregiver, to access the record so they can review the plan of care contained within MyLGHealth, our patient portal. Future plans include expanding MyLGHealth capacities to enable caregivers to participate in video visits and consultations with physicians.

Potential barriers could include a patient's desire for privacy and wishing to provide limited access to their clinical record. A limited access view online for a proxy would be a challenge for electronic health record vendors to create and health systems to maintain. In addition, patients have concerns about the records stored online and the video visits occurring over an "unsecured" internet connection. Similarly, adoption of the new technologies may be difficult for some patients and regions. Those with limited infrastructure to support telehealth services may not migrate quickly or easily to this new method of care communication. Even now, not all providers utilize electronic health records and similarly, electronic health records are not uniform. Thus, patients seeing multiple providers in varied networks may not have continuity across their record as information may be stored in disparate systems. This in turn would make the challenge for the proxy that much more difficult, as there may not be one central portal containing all of the patient's health information for the proxy to review.

The Honorable Joe Barton

1. How secure are medical records when using this kind of technology?

In 2011, a systematic review of 58 articles pertaining to telemedicine security found that seventy-six percent of the articles defined the security problem they were addressing, and only 47% formulated a research question pertaining to security. Sixty-one percent proposed a solution, and 20% of these tested the security solutions that they proposed. Prior research indicates inadequate reporting of methodology in telemedicine research. There is a need for data confidentiality during both transmission and retention. Data integrity is also a key concern to ensure correct diagnosis and quality of care. There is a need to define standards for minimum requirements. Researchers need to address these security concerns in order to increase the dissemination of telemedicine services and to improve the quality of care provided.[17]

Specifically for Lancaster General Health, our portal, MyLGHealth, is based on Epic's MyChart platform and uses SSL (Secure Sockets Layer) to achieve data security over the internet. SSL is a standard that has been adopted by the Internet community for encrypting connections between two parties. It is widely available, supported by all major browsers and by almost all major web servers, including Microsoft's Internet Information Server (IIS). In addition our platform uses firewall technology that limits the type of network traffic to and from our servers.

2. There are some concerns that if the doctor, the patient and the health insurance are in different places Medicare and Medicaid sometimes do not know how to or are unwilling to calculate the charges that result from a telemedicine visit. Would you please speak to that issue?

This question speaks to our continued support for payment programs which offer payment on a capitated basis. Providing telemedicine services are an important part of today's delivery of care

[17] Garg, Vaibhav, and Jeffrey Brewer. "Telemedicine security: a systematic review." Journal of diabetes science and technology 5.3 (2011): 768-777.

and reimbursement reform that does not support the advancements made to improve care delivery or needs and demands of the end user will not be sustainable in the long-term. The following was taken from a fact sheet provided by the Centers for Medicare and Medicaid Services (CMS).

Medicare beneficiaries are eligible for telehealth services only if they are presented from an originating site located in[18]:

- A rural Health Professional Shortage Area, either located outside of a Metropolitan Statistical Area (MSA) or in a rural census tract, as determined by the Office of Rural Health Policy within the Health Resources and Services Administration (HRSA); or
- A county outside of a MSA

The originating sites authorized by law are:

- The offices of physicians or practitioners
- Hospitals
- Critical Access Hospitals (CAH)
- Rural Health Clinics
- Federally Qualified Health Centers
- Hospital-based or CAH-based Renal Dialysis Centers (including satellites)
- Skilled Nursing Facilities (SNF)
- Community Mental Health Centers (CMHC)

For more information, please refer to the document cited for the above information. Medicare also restricts to a list of "distant site practitioners" as well.

As with new payment models and based on our previous comments, we should be reducing the restrictions on originating and distant sites such that we do not just limit the value of telehealth visits to rural areas and a limited list of practitioners. Telehealth and telemedicine opportunities are demands of consumers and thus patients – reimbursement models that are simplified and supportive will need to be developed in order to reap the benefits and savings that these new technologies may offer us.

[18] Telehealth Services: Rural Health Fact Sheet Series. (n.d.). . Retrieved June 3, 2014, from http://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/telehealthsrvcsfctsht.pdf

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May 22, 2014

Mr. Gary Chard
Delaware State Director
Parkinson's Action Network
P.O. Box 394
Wilmington, DE 19807

Dear Mr. Chard:

Thank you for appearing before the Subcommittee on Health on Thursday, May 1, 2014, to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Thursday, June 5, 2014. Your responses should be mailed to Sydne Harwick, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to **Sydne.Harwick@mail.house.gov**.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Frank Pallone, Jr., Ranking Member, Subcommittee on Health

Attachments

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Cokie Roberts

June 5, 2014

Ms. Sydne Harwick
Legislative Clerk
House Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

Dear Ms. Harwick:

Below please find my answers to the additional questions submitted by members of the House Committee on Energy and Commerce Health Subcommittee. I look forward to continuing to work with the Committee on the important issue of telemedicine.

Sincerely,

Gary J. Chard

Gary Chard
DE State Director, Parkinson's Action Network

The Honorable Joseph R. Pitts

1. Chairman Pitts: What role can telemedicine play to facilitate new payment models?
I believe another witness may be better equipped to answer this question.

2. Chairman Pitts: What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?
Accountable Care Organizations (ACOs) are uniquely positioned to encourage the development of telemedicine and benefit from the use of telemedicine, given their goal to coordinate care. Because ACOs are within Medicare, they face the same restrictions in utilizing telemedicine. These barriers are counter to the Medicare Shared Savings Program's goal of ACOs having the ability to coordinate care using telemedicine, remote patient monitoring, and other such enabling technologies.[1] While ACOs are just one example, payment models that value coordinated care and reward better health outcomes are particularly poised to benefit from the use of telemedicine.

3. Chairman Pitts: How has the advancement of telemedicine in recent years benefited the discovery, development or delivery of healthcare?
The quality of healthcare in this country is often lauded as the best in the world; however, there are many in our society who cannot access the best possible care. The advancement of telemedicine allows for the highest quality of care available to reach people who could not previously have access, whether because of location or progression of their disease. Unfortunately, there are many hurdles currently preventing telemedicine from reaching its full potential.

4. Chairman Pitts: As the capacity for telemedicine continues to grow, what regulatory bottlenecks are most likely to get in the way of its further development?
There are many hurdles currently hindering the growth of telemedicine. First of all, Congress established very strict rules for Medicare reimbursement for telemedicine through the passage of the *Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000*. While provisions have been amended since 2000, many restrictions still remain, including the requirement that a patient be located at an originating site, prohibiting them from being seen by their doctor in their own home. For many people with Parkinson's disease, as well as other movement disorders, traveling outside of the home can prove difficult, if not impossible without the help of a caregiver. If one of the main goals of telemedicine is to expand quality healthcare to those who otherwise would not have access, restricting it to only those who can travel is counterintuitive and damaging to the overall healthcare system. Access to telemedicine is not only restricted to those who can travel, the *Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000* also restricted access to telemedicine to those located in narrowly-defined rural areas, health professional shortage areas, or areas participating in a federal demonstration project. However, health disparities do not solely exist in rural

[1] 42 USC § 1395jjj(b)(2)(G).

areas. For example, I live in Wilmington, DE, which is not considered a rural area, yet there is no movement disorder specialist in the entire state of Delaware. Before I received care via telemedicine, I had to travel to Baltimore or Philadelphia, which many people with Parkinson's in Delaware continue to do. Another barrier to Medicare reimbursement of telemedicine is that Medicare only allows for certain providers to utilize telemedicine. While Congress allowed Medicare the authority to add providers every year, Medicare has yet to allow providers important to people with Parkinson's, like physical, occupational, and speech-language therapists, to be reimbursed for telemedicine. With no cure for Parkinson's, these therapies are some of the only treatments available to help maintain quality of life. Telemedicine has proven effective in delivering therapy services for people with Parkinson's, in particular speech-language therapy.[2] Because therapy services are so important to people with chronic diseases, I believe Medicare should take the step to allow for physical, occupational, and speech-language therapists to be reimbursed for telemedicine.

Another regulatory hurdle that must be addressed is the issue of state licensure. Currently, state laws and regulations require a physician to be licensed in the state where the patient is located. However, health care in the 21st century is no longer defined by state lines. People with Parkinson's and other diseases should be able to access the specialists they need, regardless of where they are located. As I stated in my testimony, in order for my movement disorder specialist to be able to treat me via telemedicine in Delaware, he had to go through the long and expensive process of becoming licensed in Delaware. If doctors were able to practice across state lines without additional licensure requirements, given the proper channels in place to protect against fraud and abuse, telemedicine will continue to grow.

5. Chairman Pitts: Can telemedicine raise the quality of service provided to patients?

Yes, telemedicine can raise the quality of service being provided to patients. According to a recent study, 42 percent of people with Parkinson's are not seeing a neurologist for their care.[3] Yet, the study also found that seeing a neurologist increases the survival rate for people with Parkinson's by six years and reduces the risk of hip fracture, which leads to expensive hospitalizations. According to the same study, people with Parkinson's who were cared for by a neurologist or movement disorder specialists had the lowest one-year Skilled Nursing Facility placement rates compared to patients cared for by all types of primary care physicians. I believe telemedicine can close this gap for people with Parkinson's and other chronic diseases that face the same access issues. Studies have shown that telemedicine can reduce hospitalization and keep people living safely and independently for longer, which are major concerns for the Parkinson's community.[4]

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[2] SIG 2 Perspectives on Neurophysiology and Neurogenic Speech and Language Disorders October 2011, Vol.21, 107-119.
[3] Willis, AW, et al. "Neurologist care in Parkinson disease: A utilization, outcomes, and survival study." Neurology. 77.9 (2011): 851-7.
[4] Darkins, M.D., Adam, et al. "Care Coordination/Home Telehealth: The Systematic Implementation of Health Informatics, Home Telehealth, and Disease Management to Support the Care of Veteran Patients with Chronic Conditions." Telemedicine and e-Health. 14.10 (2008): 1118-26.

6. Chairman Pitts: Can telemedicine lead to more patients receiving care without costly, unnecessary, and time-consuming trips to their doctors? If so, how?
Yes, if current Medicare hurdles that require a patient to travel to an originating site are removed, then people would be able to see their doctors via telemedicine in their homes. This would definitely reduce costly, unnecessary, and time-consuming trips to the doctor. In a recent study focused on people with Parkinson's, compared with in-person visits, each telemedicine visit saved participants, on average, 100 miles of travel and 3 hours of time.[5]

7. Chairman Pitts: In your opinion, what needs to be done, today, to enable you to get the care you need in the most effective way possible? Would you say the same applies to most everyone with a chronic, manageable condition? If so, please explain.
As I stated in question 4, both Medicare reimbursement and state licensure must be addressed in order for me to continue to receive the care I need in the most effective way possible. Currently, I am not on Medicare; however, when I turn 65, I will enter into the Medicare system. In order for me to continue to see my doctor using telemedicine, these issues must be addressed today. These are the same issues faced by so many people with chronic conditions who rely on Medicare.

8. Chairman Pitts: In your testimony, you speak to issues of distance and barriers to receiving the kind of care locally that you require. In your opinion, what are the barriers to receiving care that you have faced and how would telemedicine help solve them?
The main barrier to receiving the care that I need as a person with Parkinson's living in Delaware, as I mentioned in question 4, is that there is no movement disorder specialist in my state. Telemedicine has resolved this barrier issue by allowing me to see my movement disorder specialist, who is located at the University of Rochester, without leaving my own community.

I also know that many of my friends and fellow people with Parkinson's travel thousands of miles to visit all of their doctors. This impacts both their health and pocketbooks. Additionally, many Medicare beneficiaries have multiple chronic conditions that require expert care coordination. Telemedicine can allow them to receive the best care at the right time, and subsequently decrease the financial stress on the Medicare system and the emotional stress on both the patient and caregiver by reducing negative health outcomes.

9. Chairman Pitts: In today's mobile society, there is an ongoing debate about the level of benefit and efficiencies that might be gleaned from telemedicine and other 21st century technologies. In your case, does it make sense to allow patients to continue to access their trusted providers by allowing them to continue their relationship through telemedicine? If so, what benefits might that provide you?
Telemedicine has allowed me to continue to access my trusted provider through two relocations – my own and my doctor's. Being able to continue a

[5] Dorsey E, Venkataraman V, Grana MJ, et al. Randomized Controlled Clinical Trial of "Virtual House Calls" for Parkinson Disease. JAMA Neurol. 2013;70(5):565-570.

strong relationship I built with my diagnosing movement disorder specialist has provided me the best possible scenario for managing the symptoms of my disease. I hope my testimony and these answers will allow Congress to take action to remove barriers impeding the continued growth of telemedicine so others will also be able to benefit from telemedicine.

10. Chairman Pitts: Will you give us some examples of how your life would be better if you and your provider had the flexibility in tailoring your treatment to allow for virtual visits as appropriate? Are there times when you had to travel, unnecessarily, to see a Specialist because one was not available in your local area?
Fortunately, I already see my provider via telemedicine. However, prior to seeing my provider via telemedicine, I would have to travel to see him in person at Johns Hopkins University in Baltimore, MD. As I still work full-time, this unnecessary travel resulted in lost work time and stress for both me and my caregiver. Telemedicine has greatly reduced both travel and stress.

The Honorable John Shimkus

1. Representative Shimkus: Currently, a doctor may be licensed in several states. However, if a complaint is filed in one state, the other states where the doctor is licensed are unaware of those complaints. Would it be more appropriate to have a primary state record all complaints?
It would be most beneficial to have one centralized information system for complaints against all doctors, as is proposed in the Federation of State Medical Board's (FSMB) draft Interstate Licensure Compact. In our comments to the FSMB on the draft compact, the Parkinson's Action Network (PAN) recommended this information system be open to the public, like the coordinated information system included in the Nurse Licensure Compact, to allow patients to find this important information as well. PAN's comments are attached for your review.

2. Representative Shimkus: The Federation of State Medical Boards (FSMB) has tried to develop a framework for an interstate licensure compact, but it just speeds up the licensing process. It does not address the concerns of some in removing artificial barriers that prevent patients and providers from having a virtual visit, without a doctor having to plan in advance to get a license to practice medicine in whatever state their patient happens to be living in part of year or visiting. What is the difference in a patient clicking or driving form Maryville, IL to St. Louis, MO for a follow-up visit with a Specialist?
While PAN appreciates the efforts of the FSMB, we also believe that the draft Interstate Licensure Compact did not go far enough to fully address the issue of artificial barriers preventing patients and providers from having a virtual visit. The current system, which as stated, almost requires patients to get in their cars and drive to doctors, is not a system set up with the interests of the patients in mind. If a patient can travel to a doctor without any additional steps required from the doctor, then the same system should be in place if a patient wishes to see the same doctor via telemedicine.

3. Representative Shimkus: After many years of effort, the Nurse's compact has still only been signed by 26 states. What confidence if any should there be that all 50 states will allow for doctors to practice telemedicine across state lines, without a separate license in each one they want to treat patients? If this practice across state lines does not happen, what will that impact mean for coordinated care health systems?
Unfortunately, states have a vested interest in maintaining the current system – interest that includes licensing fees and control. If not addressed at a national level, I don't believe a system that allows for doctors to practice telemedicine across state lines without a separate license will ever be established. If a system of medical license reciprocity is not established, health care will continue to be fragmented by where patients live and who is able to travel.

<u>The Honorable Renee Ellmers</u>

1. Representative Ellmers: I would like to continue the discussion on care giving. As a nurse for over 20 years, it is a topic I am very familiar with. I would like to share some statistics:

- **American caregivers are predominantly female (66%) and are an average age of 48 years old.**
- **Most care for a relative (86%), most often a parent (36%).**
- **Family caregivers provide an average of 20 hours of care per week.**
- **Caregiving lasts an average of 4.6 years.**

Making it easier to get care to those who may have trouble traveling long distances to see a provider will improve outcomes and lives. Patients who have chronic conditions live longer and healthier lives when they have coordinated care and adhere to treatment programs. Today, children, often the daughter, are the caregivers for their parents. They are the vital component of coordinated care. Millions of women, who are caregivers, want to be there for their loved ones, but also need to be home to take care of their children or do their job.

With billions of dollars invested in using broadband technologies national networks with high speeds and capacity, today's state by state licensing of doctors is a barrier that should be removed. Established in the 1800s, it is an antiquated relic and it is time for it to be changed as it is proving to be an impediment to providing quality care for seniors. This is why I am a proud cosponsor of Reps. Nunes and Pallone's H.R. 3077, the Tele-Med Act. This bill would allow Medicare doctors licensed in one state to see a Medicare beneficiary across state lines without a separate license.

Can we not use technology to ensure family members and caregivers are included in discussions with the provider and the patient they are caring for? Would it not improve communications if the caregiver can speak with the patient's doctor directly, with the patient and for the patient, and be kept up-to-date with what the doctor is telling the patient, without having that caregiver fly across the country to attend a short appointment? What barriers are we facing to making this a reality?

I also support H.R. 3077, the TELE-MED Act, and believe licensure barriers within the Medicare system should be removed. To answer your questions regarding caregivers – yes, I believe technology can be a useful tool in engaging caregivers in the healthcare decisions of the patient. Many people with Parkinson's rely on a caregiver or family members to help manage their health. Unfortunately, I am not familiar with the technological or legal barriers that are currently restricting this practice, and believe another witness may be better able to answer your specific question. This is an important topic that I hope will continue to receive the attention of you and the Committee.

The Honorable Joe Barton

1. Representative Barton: How secure are medical records when using this kind of technology?
I believe other witnesses may be better able to answer this specific question as I am not familiar with data security issues.

2. Representative Barton: There are some concerns that if the doctor, the patient and the health insurance are in different places Medicare and Medicaid sometimes do not know how to or are unwilling to calculate the charges that result from a telemedicine visit. Would you please speak to that issue?
The current system for reimbursement for telemedicine within Medicare is a major hurdle. The system created by the *Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000* is antiquated and an updated more robust system should be allowed for by Congress.

However, with regards to Medicaid and private insurance, over 20 states have taken legislative action to require Medicaid and/or private insurance plans in their states to cover telemedicine services. With so many states taking action on this issue, I believe it is time that Congress addresses the significant barriers that exist within the Medicare system.

Parkinson's Action Network

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June 2, 2014

Eric Fish, JD
Senior Director of Legal Services
Federation of State Medical Boards
1300 Connecticut Ave., NW
Suite 500
Washington, DC 20036

Dear Mr. Fish:

The Parkinson's Action Network (PAN) is the unified voice of the Parkinson's community advocating for better treatments and a cure. We appreciate the opportunity to comment on the Federation of State Medical Board's (FSMB) draft Interstate Medical Licensure Compact. In partnership with other Parkinson's organizations, including The Michael J. Fox Foundation for Parkinson's Research, the National Parkinson Foundation, the Parkinson Alliance, and the Parkinson's Disease Foundation, and our powerful grassroots network, PAN educates the public and government leaders on better policies for research and improved quality of life for the 500,000 to 1.5 million Americans living with Parkinson's disease.

We commend the hard work of the FSMB to address the very complex and important issue of interstate licensure. However, PAN is concerned that the draft Interstate Licensure Compact does not fully address the current licensure hurdles.

PAN is especially interested in addressing the issue of interstate licensure because of the limiting effect current licensure rules have on the practice of telehealth. For the Parkinson's community, telehealth has the potential to be a powerfully valuable service in terms of improving quality of life and better management of symptoms by increasing access to specialists. A recent study found that while seeing a neurologist increases quality of life, 42% of people with Parkinson's are not seeing a neurologist or a movement disorder specialist for their care. Yet, the study also found that seeing a neurologist leads to better clinical outcomes and may lead to a longer life for people living with Parkinson's.

While interstate licensure is a significant hurdle to the practice of telehealth, PAN does not believe the FSMB's draft Interstate Licensure Compact will make a significant impact on reducing that hurdle. Although the draft compact states the licensure process will be expedited, it does not set specific time goals for processing applications. Also, the draft compact does nothing to address the expensive fees that doctors must pay to become licensed in multiple states. We

understand state medical boards and the Compact Commission may incur some administrative costs in processing licensing applications; however, significant licensing fees remain a major barrier to doctors. With no promise of a faster or less expensive process, there is no incentive for a doctor to use the compact licensing process. PAN believes that not addressing these issues will merely establish a parallel licensing system that is no better than the current system.

Ultimately, PAN believes that the FSMB should strive for a system of reciprocity, similar to the systems that exist within the Department of Defense and the Department of Veterans Affairs. These systems have allowed our nation's soldiers and veterans to have access to the best care possible when and where they need it, which is a goal we should all strive to meet. Similarly, we recommend that the FSMB take under consideration the Nurse Licensure Compact. Under the Nurse Licensure Compact, a nurse only has to have one license in a compact state in order to be able to practice in other compact states. It is not required that nurses go through an additional administrative licensing process or pay additional fees. We believe that this type of reciprocity system is what should be adopted by the FSMB. However, we are aware that one issue with the Nurse Licensure Compact is that since 1999, only 24 states have joined the compact. In order to be useful, compacts must be adopted by all, or a majority, of the states. We hope that the FSMB's Interstate Licensure Compact will be more successful in creating a unified system.

Additionally, PAN is concerned with the overall compact approach to state licensure. In theory, interstate compacts work well to coordinate state rules and regulations; however, in practice, they must be adopted by a majority of the states to be useful. Since 1999, only 24 states have joined the Nurse Licensure Compact. We believe that a compact state medical licensure system that is adopted by only some states will only further the current fragmentation that is detrimental to doctors who wish to practice telehealth. PAN looks forward to working with the FSMB to ensure a streamlined and consistent system across all states.

PAN does support a coordinated information system as part of the draft compact. We believe this is an essential component to the success of the compact, as well as patient safety. In order to make it most beneficial to patient safety, we suggest that you make aspects of the information system publicly accessible, like the system used by the Nurse Licensure Compact. PAN believes patients should be able to access a database of disciplinary actions taken against physicians in order to make the best choice. We also believe this will be beneficial to patients who wish to see physicians via telehealth, given that they might not have a prior relationship with the physician.

In closure, we do applaud the FSMB for addressing the significant issues around interstate medical licensure and for drafting the Interstate Licensure Compact. However, health care in the 21st century is no longer defined by state lines. People with Parkinson's and other diseases should be able to access the specialists they need, regardless of where they are located. Unfortunately, PAN does not believe the current draft of the Interstate Licensure Compact does enough to address the current fragmented state licensure system. We look

forward to continuing to work with the FSMB to ensure the hurdles currently restricting patient access to quality care are removed.

Sincerely,

Amy Comstock Rick

Amy Comstock Rick

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED THIRTEENTH CONGRESS

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May 22, 2014

Ms. Kofi Jones
Vice President of Public Affairs
American Well
75 State Street, 26th Floor
Boston, MA 02109

Dear Ms. Jones:

Thank you for appearing before the Subcommittee on Health on Thursday, May 1, 2014, to testify at the hearing entitled "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

Also attached are Member requests made during the hearing. The format of your responses to these requests should follow the same format as your responses to the additional questions for the record.

To facilitate the printing of the hearing record, please respond to these questions and requests with a transmittal letter by the close of business on Thursday, June 5, 2014. Your responses should be mailed to Sydne Harwick, Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, D.C. 20515 and e-mailed in Word format to **Sydne.Harwick@mail.house.gov**.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Joseph R. Pitts
Chairman
Subcommittee on Health

cc: The Honorable Frank Pallone, Jr., Ranking Member, Subcommittee on Health

Attachments

AMERICAN WELL

The Honorable Joe Pitts
Chairman
House Energy and Commerce Committee
Subcommittee on Health
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Frank Pallone
Ranking Member
House Energy and Commerce Committee
Subcommittee on Health
2322A Rayburn House Office Building
Washington, DC 20515

RE: Responses to Questions for the Record regarding "Telehealth to Digital Medicine: How 21st Century Technology Can Benefit Patients"

Chairman Pitts and Ranking Member Pallone:

Thank you again for the opportunity to appear before the Subcommittee on Health on May 1, 2014, to testify on how advances in technology can be harnessed to advance our nation's health care system and how the federal government can support technology adoption in our health care programs to reduce costs and increase the overall quality and efficiency of programs.

Below please find American Well's response to the questions for the record requested by the Subcommittee.

Thank you for your consideration.

Sincerely,

Kofi Jones
Vice President of Public Affairs
American Well

The Honorable Joseph R. Pitts

1. **What role can telemedicine play to facilitate new payment models?**

Telemedicine can reduce in-office, consumer out-of-pocket, and payer costs; increase access to underserved areas, primary care and evaluation, specialty care, health management, and care-coordination; avoid unnecessary hospitalizations and emergency room (ER) visits; and minimize excessive patient wait times and transportation costs. Telemedicine can also assist providers to prevent and slow the onset of a disease to the point where it becomes chronic and more costly.

Thus, telemedicine is a tool that obviates barriers to efficiency and access. Since telemedicine can provide high touch, high frequency care for high risk individuals in the lowest cost setting and environment that many patients and providers prefer, it furthers new payment models that leverage these attributes into aligning payments to incentivize the delivery of higher quality, lower cost, and coordinated care.

The value proposition for telemedicine as a key part of payment model reform was recognized in a recent, bipartisan amendment offered by Senators John Thune (R-SD), Ron Wyden (D-OR), Pat Roberts (R-KS), Jay Rockefeller (D-WV), Mike Enzi (R-WY), and Debbie Stabenow (D-MI) to the Senate Finance Committee's markup of the *SGR and Medicare Beneficiary Access Improvement Act*. This amendment would have promoted the use of telehealth technology by ensuring payment and eligibility barriers to using telehealth under Medicare do not exist in Alternative Payment Models (APMs) – e.g. accountable care organizations (ACOs), patient centered medical homes, bundled payment models, etc. It would have ensured that the geographic and statutory restrictions on Medicare reimbursement in Social Security Act Section 1834(m) would not apply to APMs. Unfortunately, this amendment was not included in the final language for the short-term SGR patch that was recently signed into law.

Furthermore, in countries where telemedicine has matured more quickly (due to fewer governmental barriers), payment reform has already begun. For example, a Deloitte paper, "Technology, Media, and Telecommunications Predictions 2014," outlines that in Ontario, Canada, the government recently added a public insurance payment code to allow physicians to bill for "e-consults". Australia and France have long allowed for government support for electronic health care visits, and Denmark has also offered telemedicine reimbursement for many years and is piloting new variations—such as tele-psychiatry.

2. **What payment models are likely to best encourage the development of telemedicine or benefit from the use of telemedicine and how?**

As telemedicine furthers new payment models that leverage the dual benefits of efficiency and access, payment models that align payments to incentivize the delivery of higher quality and lower cost care will further the development of telehealth. Models that

prioritize three main areas will be important to telemedicine: 1) Access; 2) Specialized Populations; and 3) Payment Alignment and Technology.

Access: Payment models that recognize access, especially in areas where there is a lack of health care providers in primary care or other specialties, will incentivize the use of telemedicine to increase access to these populations.

Specialized Populations: Models focused on reducing the cost of care through the use of lower care settings. This is currently is ubiquitous throughout most payment models, including ACOs, bundled payments, patient-centered medical homes.

Payment Alignment and Technology: Any model that includes incentives for providers to lower the cost of care through aligning payment to promote the most efficient use of technology to reach the lowest cost of care setting delivery. This can be achieved through focusing on population specific models such as for the long-term care population and the post-acute care population where transitions among health care facilities and transportation to physician and health care facilities are difficult or expensive.

American Well has a number of innovative installations including:

- BlueCross BlueShield of Louisiana: Blue Cross and Blue Shield of Louisiana leverages American Well's telehealth platform as an added feature of its new Quality Blue Primary Care (QBPC) population health and quality improvement program, and will create multiple avenues to use this technology in other programs.

- BlueCross BlueShield of Massachusetts: Blue Cross Blue Shield of Massachusetts is piloting the American Well Online Care within provider groups in its groundbreaking Alternative Quality Contract (AQC).

3. How has the advancement of telemedicine in recent years benefited the discovery, development, or delivery of healthcare?

Telehealth – real-time, synchronous audio-video encounters between patients and providers – presents the opportunity to reverse the longstanding standard of placing the burden on patients to seek care where it's physically available. Telehealth brings healthcare directly to the patient, when and where they need it – similar to an old-fashioned "house call" – but with the added benefits technology to aid in its delivery.

Telemedicine has been shown to offer numerous benefits, including reducing health care costs, increasing patient access (particularly in underserved areas, off hours, and high wait time regions), improving continuity and quality of care, and increasing convenience—thereby reducing treatment time and related costs of travel and lost productivity. For example, a study by Deloitte predicts that this year alone, there will be

100 million eVisits globally, potentially saving over $5 billion when compared to the cost of face-to-face doctor visits.

One of the most important benefits of telehealth – particularly through American Well's technology – is the ability to deliver health care anytime, anywhere, from any location to any other location. This goes a long way to increasing care management and appropriate utilization for currently underserved patients, reducing health care spending by improving long-run patient outcomes. A 2011 study published in *Health Affairs*, "Integrated Telehealth And Care Management Program For Medicare Beneficiaries With Chronic Disease Linked To Savings," found that integrating a telehealth tool with care management for chronically ill Medicare beneficiaries yielded spending reductions of approximately 7.7 percent to 13.3 percent ($312–$542) per person per quarter. By streamlining the delivery of health care, telehealth improves outcomes and can decrease costs.

In addition to improving the delivery of healthcare, telehealth is driving innovation in other areas as well. An article in the *Telemedicine Journal and E-Health* ("Telehealth Innovations in Health Education and Training") finds that a desire to increase the utilization of telehealth will also likely drive downstream key innovations in technology such as simulation models that can be access from all quality computers, software and hardware interfaces, portable telehealth systems, and other innovative technologies. To that end, American Well has recently developed and deployed a state-of-the-art telehealth kiosk, which can be deployed at numerous locations, including an employer's worksite, to allow patients to access a licensed, credentialed physician for a live, face-to-face immediate or scheduled visit. We look forward to driving further innovation in this field and constantly improving our technologies.

4. As the capacity for telemedicine continues to grow, what regulatory bottlenecks are most likely to get in the way of its further development?

As outlined in American Well's testimony for the May 1, 2014 Subcommittee hearing, regulatory barriers play a large role in impeding telemedicine innovation and use in the United States.

Clinical Permissibility and Federal Standards: As innovation in telehealth progresses and states take positive steps to encourage this kind of care, it is increasingly obvious that Federal legislation is required to resolve the uncertainty that has resulted from a confusing patchwork of state and local regulations. Currently there exist 50 different sets of rules governing telehealth across the nation—with varying definitions of what telehealth is and what it is allowed to do. The Subcommittee should consider promoting a uniform solution to this patchwork of state laws and regulations. Thus, we urge the Subcommittee to consider, and report out, the bipartisan *Telehealth Modernization Act* (H.R. 3750), introduced by Representatives Doris Matsui and Bill Johnson, both members of the Energy and Commerce Committee. This legislation provides principles which the states can look to for guidance when developing new policies that govern

telehealth. These principles are based on a "highest common denominator" approach, which will ensure the safe and secure deployment and utilization of telehealth.

Additionally, when contemplating federal legislation in the telehealth space we advise the Subcommittee to consider the *Appropriate Use of Telemedicine in the Practice of Medicine*—a new model national policy ratified by the Federation of State Medical Boards (FSMB) in April. This document is the latest and most comprehensive review of telemedicine clinical practices and marks the first time the medical community has unilaterally acknowledged the impact technology has had on the practice of medicine. In addition to defining telemedicine, the FSMB's new model policy affirms that: treatment made in an on-line setting should be held to the same standard of appropriate practice as those in traditional settings; a physician-patient relationship can be established using telemedicine, so long as the standard of care is met; prescribing in a telehealth encounter should be at the discretion of the physician; and that telehealth encounters should be HIPAA compliant, include informed consent and the generation of a medical record, and support continuity of care.

Licensure: The existing health professional licensure and practice regulations significantly limit the ability of a health professional to practice via telemedicine, thereby limiting patient access and choice. Currently, health professionals must be licensed in the state in which they provide care, leading those who wish to practice across state lines via telehealth technologies to acquire duplicate licenses and to maintain expertise in separate practice rules in each state. However, through technology, doctors and other healthcare professionals can now be physically located in one state, while their expertise is required in another; in theory, enabling then to provide their expertise, and often life-saving care, to those in need across state lines. Licensure is a lengthy and costly process for providers, and each state has its own rules around standards-of-care and scope-of-practice regulations, particularly where telehealth is concerned.

Lawmakers have introduced in the 113th Congress legislation to expand on the Servicemembers' Telemedicine & E-Health Portability (STEP) Act, which expanded Department of Defense licensure exemptions to allow for health professionals to practice across state borders. The VETS Act (H.R. 2001) would enable Department of Veterans Affairs' health professionals to serve any veteran in the U.S. without the need for multiple state licenses. Similarly, the bipartisan TELE-MED Act (H.R. 3077), introduced by Ranking Member Frank Pallone (D-NJ) and Representative Devin Nunes (R-CA), would allow Medicare patients to be cared for by a licensed provider from any state.

Reimbursement: Section 1834(m) of the Social Security Act defines telehealth and how Medicare will reimburse for telehealth services. However, under Section 1834(m) not all telehealth costs are reimbursed—far from it. Medicare, which has to come to set the standard, reimburses for telehealth services only when patients present themselves in a rural area, at an originating site that must be a medical facility—not the patient's home. Thus, in order to receive care via telehealth, patients still must travel to an originating site to get the care they need. This language is archaic, not taking into account the incredible innovation that has occurred in the health sector through telemedicine and technology.

Furthermore, the rural originating site stipulation contained within Section 1834(m) imposes a powerful downstream effect. The majority of the 46 states which have used the latitude afforded them to create their own telehealth reimbursement policies under Medicaid, have largely mirrored the restrictive Medicare policy. Ideally, Section 1834(m) should be modernized to reflect the changing nature of the health care world. We recognize that this raises concerns about increased utilization and, thus, increased costs. However, the Subcommittee should draw on the insights of the Department of Veterans Affairs—which is a leader in the government's implementation of telehealth—and several innovative state Medicaid programs (such as Colorado, Kansas, and Washington) as it looks at questions of health outcomes, efficiencies, and cost savings.

5. Can telemedicine raise the quality of service provided to patients? If so, how?

By removing barriers such as provider shortage, distance, mobility, and time constraints, telehealth has the ability to transform health care delivery by improving access to quality care. Further, given telehealth's ability to transcend distance and time, these technologies can offer high and frequent touch to those high risk patients most in need. In addition to increasing access to quality and specialized care, scientific studies have shown that the use of telemedicine for chronic care monitoring, accessing specialists, and other means have resulted in significantly improved care and improved outcomes. Moreover, telemedicine has shown that there is no difference in the ability of a provider to obtain clinical information, make an accurate and appropriate diagnosis, and develop a treatment and follow up plan when compared to an in-person visit.

For example, according to the Department of Veteran's Affairs, telehealth solutions have an 87 percent satisfaction rate among health care professionals. More important, individuals using telehealth report favorable experiences and often save time over a traditional health care encounter. For example, in FY2012 the Department of Veterans' Affairs (VA) provided telehealth care to 497,000 patients from 150 VA Medical Centers and 750 Community Based Outpatient Clinics. Not only did this telehealth program decrease bed days and admissions for patients, it did so in a way which yielded high patient satisfaction and cost savings. For home telehealth, patient satisfaction was 85 percent, and for clinical video telehealth, satisfaction was 93 percent. As policymakers continue to seek means to care, and improve care, for our nation's veterans, telehealth has been a proven means within the VA of improving outcomes.

6. Can telemedicine lead to more patients receiving care without costly, unnecessary, and time-consuming trips to their doctors? If so, how?

Telehealth's greatest promise is that of bringing care TO the patient, where and when they need it. This expansion of care delivery to lower cost settings will help drive down costs in terms of unnecessary ER utilization, hospitalizations, general overhead, and hospital overload. Telehealth also supports preventative care for those with chronic

conditions, thus reducing the risk of unnecessary exacerbation of these very costly chronic issues.

On average, each telehealth visit saves $140. More importantly, telehealth has demonstrated the potential to be a driver of cost savings and has commercially saved $1.05-$3.40 per member per month (PMPM) (Mercer, "Online Care for Employers: Cost Savings Analysis," 2012) and has saved $6.95 PMPM within Medicare (Milliman, "An Actuarial Analysis of Online Care," 2011). Expanding the ability of patients to access medical services through telehealth will help continue to drive down costs.

Regrettably, Section 1834(m) of the Social Security Act limits Medicare reimbursement for telehealth services that occur at a rural originating site only, thus failing to capture potential cost savings presented by telehealth. The National Rural Health Association (NRHA) has found that the reimbursement to originating sites in rural areas for telehealth is insufficient to cover the costs of providing these services. According to the NRHA, rural providers do not "receive equitable compensation for their provision of services provided via telehealth" and thus are challenged to maintain the support staff that is required to facilitate telehealth visits. If the originating site is not fairly compensated telehealth services, which themselves can save costs and increase care quality, may not even be offered at these originating sites.

Further, by restricting Medicare reimbursement for telehealth only to rural, clinical sites, the opportunity to fully realize the promise of telehealth is lost. This language, first drafted in 2000, does not take into account the significant patient wait times which currently exist in some of nation's urban areas, the overuse of emergency rooms after hours, or the evolution in telehealth technologies which allow for a great number of healthcare issues to be resolved safely and effectively from the home or the workplace. Re-examining this antiquated language could result in much greater access, cost-savings, and better healthcare management for some of those most in need across the nation.

7. **WellPoint now offers patients 24-hour online access to doctors and nurse practitioners at a fraction of the cost of in-person consultations. How does Medicare compare to private insurance in making use of telemedicine such as WellPoint?**

American Well is proud of its partnership with WellPoint on its LiveHealth Online national telehealth initiative. WellPoint is making telehealth encounters an integrated benefit for all of their customers over the next 24 months. Patients pay their standard cost-share to visit with a state-licensed and credentialed physician, specifically trained in providing care via telehealth. Patients can receive care regardless of time or location.

Comparatively, Medicare only offers reimbursement in some circumstances. Under the Section 1834(m) of the Social Security Act, Medicare reimburses for telehealth services only when patients present themselves in a rural, clinical originating site. An originating site is the location of an eligible Medicare beneficiary at the time the service is being

furnished through telehealth. In addition, Medicare beneficiaries are eligible for telehealth services only if they are located in a rural Health Professional Shortage Area (HSPA) or in a county outside of a Metropolitan Statistical Area (MSA).

Also, there are three criteria for determining whether a location is an eligible telehealth originating site. Among these criteria, is a geographic measure which allows for sites located in either a county that is not an MSA or in an area designated as a rural HPSA to be considered an originating site. CMS has always interpreted "rural" to mean a location not located within an MSA, but have also looked to the Office of Rural Health Policy's (ORHP) designations of Rural Urban Commuting Areas (RUCAs) to determine rural areas within MSAs.

Currently, 21 states and the District of Columbia require that private insurers cover telehealth services the same as they would cover in-person health care. Some of these states have rural restrictions within their mandates, reflecting the language contained within Medicare provisions.

Consistency and modernization of telehealth reimbursement policy is a necessary next step in the further adoption of telemedicine, particularly by physicians and other providers.

8. **There are fears of a physician shortage in coming years. With doctors showing increasing reluctance to accept new Medicare patients to their practice, could telemedicine help extend the reach of those currently in practice and allow them to expand the number of patients they can see? For example, could virtual visits allow for a physician or other support staff to see some patients sooner with low risk concerns?**

One of the primary benefits of telehealth is expanding access to quality care by extending the reach and availability of providers and decreasing wait times for those seeking care. Given the great advancements in telehealth technologies in recent years, this care can be delivered in an environment as safe and secure as care provided in person.

For example, American Well's telehealth platform is designed to be HIPAA compliant and secure, allows for providers to view patient medical history, can integrate with diagnostic and medical devices, enabling truly meaningful and informed care, and supports multi-disciplinary collaboration which supports the Patient Centered Medical Home. As the platform supports synchronous audio-video encounters, providers are able to interact with patients, review symptoms, and identify any potential contraindications to treatment suggested, and fully document the care and treatment provided.

Through innovative tools, such as the online waiting room, ePrescribing, and other means, American Well's telehealth solution, and telemedicine in general, can decrease

wait times, increase provider efficiency, and, thus, increase provider availability, thus maximizing the ability for any individual provider to focus on the provision of care.

In addition, by preventing and slowing the onset of a disease to the point where it becomes chronic, telehealth will, in the long run, decrease heavy utilization of the health care system for highly chronic and persistent conditions—thereby freeing physicians who would otherwise be treating these chronic conditions. For example, in lieu of telehealth, 85 percent of health care users would have to visit a more expensive care setting, such as an urgent care center of an ER (Mercer, "Online Care for Employers: Cost Savings Analysis," 2012). Of the current telehealth online visits, 23 percent occur on the weekend and 33 percent occur before 9am or after 5pm Monday through Friday.

The tremendous potential for telemedicine and its beneficial impact for physicians is a major reason why organizations like Federation of State Medical Boards and the American Medical Association are modernizing their policy positions on telemedicine.

<u>The Honorable Renee Ellmers</u>

1. **I would like to continue the discussion on care giving. As a nurse for 20 years, it is a topic I am very familiar with. I would like to share some statistics:**

    - **American Caregivers are predominantly female (66%) and are an average of 48 years old.**
    - **Most care for a relative (86%), most often a parent (36%)**
    - **Family caregivers provide an average of 20 hours of care per week.**
    - **One in seven caregivers provides care, over and above regular parenting, to a child with special needs (14%).**
    - **Care giving lasts an average of 4.6 years.**

    Making it easier to get care to those who may have trouble traveling long distances to see a provider will improve outcomes and lives. Patients who have chronic conditions love longer and healthier lives when they have coordinated care and adhere to treatment programs. Today, children, often the daughter, are the caregivers for their parents. They are the vital component of coordinated care. Millions of women, who are caregivers, want to be there for their loved ones, but also need to be at home to take care of their children or do their job.

    With the billions of dollars invested in using broadband technologies national networks with high speeds and capacity, today's state by state licensing of doctors is a barrier that should be removed. Established in the 1800s, it is an antiquated relic and it is time for it to be changed as it is proving to be an impediment to providing quality care for seniors. This is why I am a proud cosponsor of Reps. Nunes and Pallone's H.R. 3077, the Tele-Med Act. A bill that would allow Medicare doctors

licenses in one state to see a Medicare beneficiary across state lines without a separate license.

Can we not use technology to ensure family members and caregivers are included in discussions with the provider and the patient they are caring for? Would it not improve communications if the caregiver can speak with the patient's doctor directly, with the patient and for the patient, and be kept up-to-date with what the doctor is telling the patient, without having that caregiver fly across the country to attend a short appointment? What barriers are we facing to making this a reality?

Through telehealth, family caregivers can receive expanded access to health care information and services, improves caregiver intervention services, increased means of ensuring adherence to interventions, enhanced training for home caregiving, and reduced costs of specialty services for family caregivers.

Per an 11-year review conducted by researchers at Florida State University, "Telehealth and family caregiving: Developments in research, education, and health care policy," telehealth use in family caregiving generally led to significantly greater gains in target outcomes than control groups. The report also collected qualitative findings of family caregivers who reported telehealth increased their ability to share situations and specific problems with physicians reduced anxiety about their caregiving and helped them learn new skills and techniques.

As discussed in American Well's testimony before the Subcommittee on May 1, 2014, there are three main barriers to making prevalent access to telemedicine for caregivers and for the nation a reality: 1) uniform standards of clinical permissibility; 2) licensure; and 3) reimbursement.

Clinical Permissibility and Federal Standards: As innovation in telehealth progresses and states take positive steps to encourage this kind of care, it is increasingly obvious that Federal legislation is required to resolve the uncertainty that has resulted from a confusing patchwork of state and local regulations. Currently there exist 50 different sets of rules governing telehealth across the nation—with varying definitions of what telehealth is and what it is allowed to do. The Subcommittee should consider promoting a uniform solution to this patchwork of state laws and regulations. Thus, we urge the Subcommittee to consider, and report out, the bipartisan *Telehealth Modernization Act* (H.R. 3750), introduced by Representatives Doris Matsui and Bill Johnson, both members of the Energy and Commerce Committee. This legislation provides principles which the states can look to for guidance when developing new policies that govern telehealth. These principles are based on a "highest common denominator" approach, which will ensure the safe and secure deployment and utilization of telehealth.

Additionally, when contemplating federal legislation in the telehealth space we advise the Subcommittee to consider the *Appropriate Use of Telemedicine in the Practice of Medicine*—a new model national policy ratified by the Federation of State Medical Boards (FSMB) in April. This document is the latest and most comprehensive review of

telemedicine clinical practices and marks the first time the medical community has unilaterally acknowledged the impact technology has had on the practice of medicine. In addition to defining telemedicine, the FSMB's new model policy affirms that: treatment made in an on-line setting should be held to the same standard of appropriate practice as those in traditional settings; a physician-patient relationship can be established using telemedicine, so long as the standard of care is met; prescribing in a telehealth encounter should be at the discretion of the physician; and that telehealth encounters should be HIPAA compliant, include informed consent and the generation of a medical record, and support continuity of care.

Licensure: The existing health professional licensure and practice regulations significantly limit the ability of a health professional to practice via telemedicine, thereby limiting patient access and choice. Currently, health professionals must be licensed in the state in which they provide care, leading those who wish to practice across state lines via telehealth technologies to acquire duplicate licenses and to maintain expertise in separate practice rules in each state. However, through technology, doctors and other healthcare professionals can now be physically located in one state, while their expertise is required in another; in theory, enabling then to provide their expertise, and often life-saving care, to those in need across state lines. Licensure is a lengthy and costly process for providers, and each state has its own rules around standards-of-care and scope-of-practice regulations, particularly where telehealth is concerned.

Lawmakers have introduced in the 113th Congress legislation to expand on the Servicemembers' Telemedicine & E-Health Portability (STEP) Act, which expanded Department of Defense licensure exemptions to allow for health professionals to practice across state borders. The VETS Act (H.R. 2001) would enable Department of Veterans Affairs' health professionals to serve any veteran in the U.S. without the need for multiple state licenses. Similarly, the bipartisan TELE-MED Act (H.R. 3077), introduced by Ranking Member Frank Pallone (D-NJ) and Representative Devin Nunes (R-CA) would allow Medicare patients to be cared for by a licensed provider from any state.

Reimbursement: Section 1834m of the Social Security Act defines telehealth and how Medicare will reimburse for telehealth services. However, under Section 1834(m) not all telehealth costs are reimbursed—far from it. Medicare, which has to come to set the standard, reimburses for telehealth services only when patients present themselves in a rural area, at an originating site that must be a medical facility—not the patient's home. Thus, in order to receive care via telehealth, patients still must travel to an originating site to get the care they need. This language is archaic, not taking into account the incredible innovation that has occurred in the health sector through telemedicine and technology. Furthermore, the rural originating site stipulation contained within Section 1834(m) imposes a powerful downstream effect. The majority of the 46 states which have used the latitude afforded them to create their own telehealth reimbursement policies under Medicaid, have largely mirrored the restrictive Medicare policy. Ideally, Section 1834(m) should be modernized to reflect the changing nature of the health care world. We recognize that this raises concerns about increased utilization and, thus, increased costs. However, the Subcommittee should draw on the insights of the Department of Veterans

Affairs—which is a leader in the government's implementation of telehealth—and several innovative state Medicaid programs (such as Colorado, Kansas, and Washington) as it looks at questions of health outcomes, efficiencies, and cost savings.

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